ANNUAL REPORT 1983/1984

Alberta
TRANSPORTATION

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Alberta
TRANSPORTATION

Office of the Minister

423 Legislature Building
Edmonton, Alberta, Canada
T5K 2B6
403/427-2086

The Honourable
Frank Lynch-Staunton
Lieutenant-Governor
Province of Alberta

Sir:

I have the honour to submit to you the Annual Report for Alberta Transportation for the fiscal year ending March 31, 1984.

Respectfully submitted,

MEMoore

MARVIN E. MOORE
Minister of Transportation

Alberta
TRANSPORTATION

Office of the Deputy Minister

2nd Floor, Twin Atria Building
4999 - 98 Avenue
Edmonton, Alberta, Canada
T6B 2X3
403/427-2081

The Honourable
Marvin E. Moore
Minister of Transportation

Sir:

I have the honour to present to you the Annual Report for Alberta Transportation for the fiscal year ending March 31, 1984.

Respectfully submitted,

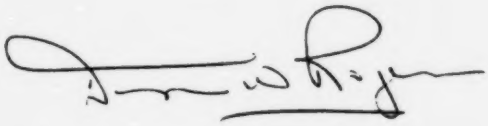
HARVEY M. ALTON
Deputy Minister

Auditor's Report

To the Minister of Transportation

I have examined the balance sheet of the Transportation Revolving Fund as at March 31, 1984 and the statements of operations and surplus and changes in financial position for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Fund as at March 31, 1984 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.



F.C.A.
Auditor General

Edmonton, Alberta
July 20, 1984

STATEMENT A

BALANCE SHEET

As At March 31, 1984

	1984	1983
ASSETS		
Current:		
Accounts receivable	$ 23 806 078	$ 18 404 625
Inventories (Note 3)	15 373 290	16 873 524
Land inventory	4 142 883	11 040 109
	43 322 251	46 318 258
Fixed:		
Equipment, at cost	81 230 730	79 610 283
Less: Accumulated depreciation	44 031 122	39 322 018
	37 199 608	40 288 265
	$ 80 521 859	$ 86 606 523
LIABILITIES AND SURPLUS		
Current:		
Accounts payable and accrued liabilities	$ 3 263 412	$ 4 749 558
Provincial Treasurer's advance	69 843 621	84 108 238
Surplus (Deficit), (Statement B)	7 414 826	(2 251 273)
	$ 80 521 859	$ 86 606 523

The accompanying notes are part of these financial statements.

STATEMENT B

STATEMENT OF OPERATIONS AND SURPLUS

For the Year Ended March 31, 1984

	1984	1983
REVENUE		
Equipment rentals	$ 40 171 365	$ 29 150 249
Gain on disposal of equipment	672 470	268 986
Recoveries on sale of inventories (Schedule 1)	3 437 624	3 851 160
Shop labour services	915 267	997 547
	45 196 726	34 267 942
EXPENSES		
Maintenance and operating expenses (Schedule 2)	24 784 771	24 719 792
Depreciation	8 161 580	7 502 566
Administration	1 012 812	736 431
Unallocated overhead expenses	1 571 464	194 632
	35 530 627	33 153 421
Net earnings for the year	9 666 099	1 114 521
Surplus (Deficit) at beginning of the year	(2 251 273)	(3 365 794)
Surplus (Deficit) at end of the year	$ 7 414 826	$ (2 251 273)

STATEMENT C

STATEMENT OF CHANGES IN FINANCIAL POSITION

For the Year Ended March 31, 1984

	1984	1983
Funds were provided from:		
Operations:		
Net earnings for the year	$ 9 666 099	$ 1 114 521
Items not affecting working capital:		
Depreciation	8 161 580	7 502 566
Gain on disposal of equipment, net	(672 470)	(268 986)
	17 155 209	8 348 101
Advances from the Provincial Treasurer	61 683 626	75 055 766
Proceeds from equipment disposals	1 171 102	555 291
	80 009 937	83 959 158
Funds were applied to:		
Repayment of advances from the Provincial Treasurer	75 948 243	369 626 050
Additions to equipment	5 571 555	16 971 268
	81 519 798	86 597 318
Decrease in working capital	(1 509 861)	(2 638 160)
Working capital at beginning of the year	41 568 700	44 206 860
Working capital at end of the year	$ 40 058 839	$ 41 568 700

NOTES TO THE FINANCIAL STATEMENTS

March 31, 1984

NOTE 1 AUTHORITY

The Transportation Revolving Fund operates under the authority of the Department of Transportation Act, Chapter D-30, Revised Statutes of Alberta 1980.

NOTE 2 SIGNIFICANT ACCOUNTING POLICIES

(a) INVENTORIES

Inventories are valued at cost. Gravel inventories are purchased for and maintained by the Department of Transportation. Portions of inventories of lumber and petroleum products are held by third parties.

(b) LAND INVENTORY

Land which is purchased for the Property Services Branch of the Department of Transportation and can be transferred at any time upon request, is valued at cost less recoveries from sales and rentals.

(c) DEPRECIATION

Equipment is depreciated on a straight-line basis with the exception of ¾-ton trucks which are depreciated on the basis of kilometres used. The approximate useful life of major equipment categories is as follows:

Light trucks	4 years
Heavy trucks	6 or 7 years
Graders, tractors, loaders, trailers, asphalt plants and cranes	8 or 10 years

(d) ADMINISTRATION EXPENSES

Repair shops, warehouse facilities, head office accommodations, basic office equipment and furnishings and certain salaries and wages are provided by the Province of Alberta at no cost to the Fund, and accordingly are not reflected in these financial statements.

NOTE 3 INVENTORIES

Inventories are summarized as follows:

	1984	1983
Parts and supplies	$ 11 294 614	$ 13 032 645
Gravel	1 039 684	1 336 330
Lumber	2 356 458	1 771 697
Petroleum products	359 677	333 792
Work in progress	322 857	399 060
	$ 15 373 290	$ 16 873 524

NOTE 4 COMPARATIVE FIGURES

The 1983 figures have been restated where necessary to conform to 1984 presentation.

NOTE 5 APPROVAL OF FINANCIAL STATEMENTS

These financial statements were approved by management on July 20, 1984.

SCHEDULE 1

SCHEDULE OF RECOVERIES ON SALE OF INVENTORIES

For the Year Ended March 31, 1984

	1984			1983
	Sales	Cost of Sales	Net	Net
Parts and supplies	$ 20 446 467	$ 17 888 367	$ 2 558 100	$ 2 823 243
Land	12 520 615	11 927 311	593 304	501 718
Gravel	5 308 936	5 056 025	252 911	478 675
Lumber	905 013	871 704	33 309	47 524
	$ 39 181 031	$ 35 743 407	$ 3 437 624	$ 3 851 160

SCHEDULE 2

SCHEDULE OF EQUIPMENT MAINTENANCE AND OPERATING EXPENSES

For the Year Ended March 31, 1984

	1984	1983
Labour	$ 8 478 104	$ 8 010 509
Parts	7 548 913	7 121 535
Diesel fuel	3 278 396	3 311 261
Gasoline	2 651 243	3 104 829
Blades	1 363 995	1 390 014
Tires	1 192 308	1 243 259
Lubrication	614 014	646 780
Miscellaneous	811 226	871 629
	25 938 199	25 699 816
Internal equipment rentals	1 153 428	980 024
	$ 24 784 771	$ 24 719 792

Administration Division 1

Computer Services Branch 3
Equipment, Supply and Services Branch 4
Finance and Administrative Services Branch 5
Personnel Management Branch 7

Engineering Division 9

Bridge Engineering Branch 12
Contracts Engineering Branch 14
Design Engineering Branch 19
Materials Engineering Branch 17
Property Services Branch 23
Research and Development Branch 21

Regional Transportation Division 25

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Urban Transportation Branch 45

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Operating Authorities Branch 54
Motor Transport Branch 56
Administration, Research and Certificate Review Branch 57

Transportation Safety Branch 59

Public Communications Branch 63

DIVISION

Computer Services Branch 3

D.R. McTavish
Director

Equipment, Supply and Services Branch 4

H. Wilson
Executive Director

Finance and Administrative Services Branch 5

D.J. Porter
Executive Director

Personnel Management Branch 7

D.R. Learoyd
Director

The *Administration Division* is comprised of four branches: Personnel Management, Computer Services, Finance and Administrative Services and Equipment, Supply and Services.

These offer a wide variety of services in support of the construction and maintenance programs of the department. By assisting the operating branches, their programs can be delivered more efficiently, protecting the department's investment in the highway infrastructure in Alberta.

In addition, the branches are the primary contacts for the department in dealing with central government agencies such as Treasury, Personnel Administration Office, and Housing and Public Works, Supply and Services.

The past year saw a decline in both financial and personnel resources from the previous year, however, because of lower prices in the market place, the volume of construction increased slightly. The department was able to meet this challenge through the dedicated effort of its staff plus the introduction of new technologies, some of which are discussed in the following branch reports.

Computer Services Branch

Computer Services Branch develops, maintains and supports computer programs and systems for the department. The branch, which is the primary liaison between the department and the Information Services Division of Public Works, Supply and Services, consists of four sections.

Systems Planning is responsible for the development of short- and long-range data processing plans for the department.

Engineering Systems is responsible for the provision of computer systems used by the engineering and technical staff in the department.

Administrative Systems is responsible for the provision of computer systems for the administrative functions of the department.

Operations provides data entry, data control and remote job entry services to departmental users.

During 1983/84 the branch worked on 145 projects which consumed 30 113 hours. The average project required 129 hours. Approximately 15 000 hours were expended on nonproject activities including user support, education and teaching, while Operations Section keyed 88 million characters of data. Some specific projects are mentioned below.

Information Systems Planning

A series of Information Systems Planning seminars were held to ensure that in the future, management of the department's information resources are in support of the objectives and business strategies.

Regional Terminal Update

A more powerful operating system was installed on the terminal equipment in the region and district offices to provide access to the programs on the computers at the Terrace and Central Computing centres.

Employee Accident System

This system was developed for the Occupational Health and Safety Branch to provide statistics on accidents involving departmental employees while they are on the job.

Current Time Certificate Status

This system is used by the Finance and Administrative Services Branch to edit the wage time certificates before they are forwarded to Treasury for processing. The system reduces reject errors resulting in better throughput for payment.

Truck Registration System

This system was required by the Operations Branch to register trucks for the winter stockpiling program which is administered by Regional Transportation Division.

Campground and Maintenance Garage Information System

This system processes inventory data which is input on the Mohawk Terminal System, transmits the data to the PWSS mainframe and produces various reports on inventory of buildings, materials, tools, bridge materials and communication equipment.

Municipal Services Financial Reporting

This system provides the capability to the Construction Programming Branch for monitoring funding allocations for improvement district programs.

Accident Analysis System

A considerable amount of maintenance work was required on this system for the Transportation Safety Branch including major changes relative to the input forms, the type of information collected and the media used by police forces throughout the province.

Transportation Interactive Graphics System

The turnkey Intergraph system was installed in November, 1983 and consists of a VAX/780, two plotters, seven interactive graphics workstations (two colour) and three photogrammetric workstations. The system will be used for automated production of contract tender drawings, mapping, photogrammetric maps and interactive design.

Departmental Menu System

This system was implemented and provides user-friendly access (as well as security) to more than 100 systems on the Terrace Datacentre. It is a hierarchy of menus which enables end users to access and run their systems.

Field Data Entry Devices

A pilot project was undertaken to determine the feasibility of using programmed hand-held computers for collection of survey and Benkelman Beam data with subsequent data transmission to a mainframe computer. The devices must operate in conditions of bright sunlight and low temperatures (-20°C) and must be acceptable to field staff. If successful, this project has great potential for numerous applications which require field collection data on forms and subsequent key entry at head office.

Pavement Management System

The PINS and RIPPS modules of this system were installed for Materials Engineering Branch and provide management reports on road surface condition.

Mobile Highway Information System

The system was implemented for Research and Development and provides reports on facilities on provincial highways (signs, guardrails, bridges, lanes, adjacent access, etc.) collected by the TENN-11 mobile microcomputer.

Enhancements

Enhancements were made to the Final Earthwork Quantities System, Design Earthwork System, Bridge Information System, Hydraulic of Bridge Waterways System and Traffic Counter System.

Equipment, Supply and Services Branch

The Equipment Supply and Services Branch administers the department's Transportation Revolving Fund. In this role the branch acts as a centralized service and supply agency addressing requirements of the department's program branches.

Audited financial statements for the Transportation Revolving Fund for the year ended March 31, 1984, are shown on pages viii, ix and x.

The branch's responsibilities are implemented through three operations divisions: Equipment Fleet Management, Repair Shops, and Stores. Reports on the activities of each of these follow.

Equipment Fleet Management

The Transportation Revolving Fund owns and operates a large fleet of fixed and mobile equipment employed by program branches to discharge responsibilities in the construction and maintenance of roads, bridges and airports within the provincial transportation system. Data on this equipment fleet are shown in Schedule A1.

The government's policy on privatization had a major impact on fleet size for the 1983/84 fiscal year. Most notable was the reduction of some 150 units as a result of the department's discontinuance of paving and base course operations. The motor grader fleet was reduced by 13 units due to privatization and the decrease in number of kilometres of gravel roads.

The increase in the utilization of light trucks continued in 1983/84, due in part to a reduction of 109 units from the fleet. Heavy equipment, in particular snowplows, showed a slight decline in utilization due mainly to the mild weather and light snowfall.

The branch, with input from the program elements within the department, continued its efforts to provide technically innovative and cost-efficient equipment. Several test projects were initiated to determine if cost efficiency could be improved. These included an evaluation on the use of compact pickup trucks; installation of petroleum economy devices on a select group of light trucks; and testing of automatic sand/salt volume control devices on several snowplow trucks.

A major innovation during 1983/84 was the implementation of on-line fleet statistics utilizing the government mainframe computer. This allowed fleet management to more effectively forecast future equipment requirements, perform timely and accurate fleet analysis, and react more quickly to user requirements.

Shop Operations

The branch operates a network of 30 repair, maintenance and service facilities which

- service, repair, overhaul and maintain the equipment fleet
- provide customer services to program departments and other users on a cost-recovery basis.

The two major facilities are located in Airdrie and Edmonton where operations include the manufacture of finished goods, fabrication of specialized requirements, and the overhaul and reconditioning of components for inventories.

Throughout the year, 42 000 signs were manufactured at the branch's Sign Shop in Edmonton, a decrease of 14 per cent from the 49 000 signs produced in 1982/83. Staff reduction, down from 232 positions in 1982/83 to 227 in 1983/84, was in accordance with departmental downsizing policy.

Shop Operations is also responsible for the Department's Apprentice Training Program which financed 130 apprentice positions again in 1983/84. The majority were in heavy-duty mechanic, welder, partsperson and machinist trades.

Stores Operations

The completion of construction and maintenance programs depends on the availability of materials inventoried by Stores Operations. This unit, through its parts and materials inventory, supports the fleet equipment repair and maintenance program and is instrumental in supplying materials for construction and maintenance needs throughout the province. Stores Operations is responsible for storage and maintenance of highway lighting equipment used by Transportation Safety, airport runway lighting equipment by the Aviation Branch, and several related safety items utilized throughout the Transportation Department.

The computerized inventory control system has resulted in maximum use of invested capital. Inventory levels have been substantially reduced from $26 million in 1982/83 to $21 million in 1983/84. Standardized reporting and commodity identification have reduced the number of line items held in the Stores Operations to 21 000 from 25 000 in 1982/83.

EQUIPMENT FLEET STATISTICS SCHEDULE A1

		Fuel Consumed			Time in Use	
	No. Units	Gasoline	Diesel	Distance		
		Decalitres		Kilometres	Hours	Days
Trucks: 1-ton and under	1 659	1 012 766	22 739	42 894 502		
Over 1-ton	655	39 131	550 596	13 312 907		
	2 314	1 051 897	573 337	56 207 409		
Graders	264	529	416 125		247 283	
Cabooses	451					90 030
Other	2 931	36 537	501 309			
	5 960	1 088 963	1 490 771	56 207 409	247 283	90 030
Previous year's total	6 287	1 100 871	1 308 215	55 770 398	246 141	112 720
Percentage change	(5.2)	(1.1)	14	0.8	0.5	(20.1)

Finance and Administrative Services Branch

Finance and Administrative Services Branch prescribes and implements financial and reporting control systems, financial policies and procedures directed at ensuring departmental consistency with the Financial Administration Act, 1977 and related Treasury Board directives.

The branch manages departmental accounting systems, financial planning activities, supervises facility services, accommodations, and provides records management and related administrative services.

Highlights

In the area of Financial Systems and Methods, the first module of a financial reporting and control system for the Regional Transportation Division (RTFRACS) progressed in development and is scheduled for implementation April 1, 1985. Preliminary definition of a second module began late in the year and is scheduled for implementation April 1, 1986.

Accounting Operations continued the streamlining and improvement of internal controls related to departmental accounts payable procedures. Invoice processing times remained constant at an average of 35 days. Approximately 190 000 payments were processed during the year.

In the area of Financial Planning and Control the branch co-ordinated the preparation, review and submission of the department's 1984/85 Estimates of Expenditures and provided financial planning advice for all departmental programs.

Administrative Services provided for the development and implementation of an automated file retrieval system for some 18 000 cubic feet of semi-active records and classification of active records. The word processing component of office automation continued with proven cost effectiveness. Efficiency improvement was realized with the consolidation of office duplicating and stock services. Considerable effort was directed to occupational health and safety concerns at various operational sites by the facilities planning group in co-operation with program management.

BUDGETARY EXPENDITURE CLASSIFIED BY OBJECT

General Revenue Fund

	In Thousand $ for the Year Ended	
	March 31, 1984	March 31, 1983
MANPOWER		
Salaries (permanent positions)	$ 37 347	$ 32 412
Salaries (non-permanent positions)	5 296	3 552
Wages	69 695	67 516
Payments to contract employees	29	36
Employer contributions	8 456	6 981
Allowances and benefits	240	235
Total Manpower	$ 121 063	$ 110 732
SUPPLIES AND SERVICES		
Travel expenses	6 894	7 172
Advertising	767	636
Insurance	169	217
Freight and postage	471	695
Contracts for construction	218 918	235 446
Rentals	118 120	148 710
Telephone and communications	2 512	2 786
Repairs and maintenance	1 716	1 657
Contract services	10 570	12 330
Data processing services	3 483	3 438
Hospitality		24
Other purchased services	7 628	8 657
Material and supplies	133 189	150 579
Total Supplies and Services	$ 504 485	$ 572 347
GRANTS		
Grants to individuals	—	1
Grants to business	—	—
Grants to non-profit organizations	313	340
Grants to own funds and agencies	7 977	10 082
Grants to other government levels	197 428	253 145
Total Grants	$ 205 718	$ 263 568
PURCHASE OF FIXED ASSETS		
Purchase of real estate	15 840	18 757
Purchase of machinery/equipment	1 441	1 442
Purchase of data processing equipment	1 903	749
Purchase of audiovisual equipment	108	74
Purchase of reproduction equipment	10	35
Purchase of office equipment	105	192
Purchase of furniture	302	41
Purchase of vehicles	—	7
Purchase of other assets	9	12
Total Purchase of Fixed Assets	$ 19 718	$ 21 309
OTHER		
Payments to Members of the Legislative Assembly and Executive Council	41	38
Total Other	41	$ 38
TOTAL DEPARTMENT	$ 851 025	$ 967 994

BUDGET ESTIMATES, TRANSFERS AND EXPENDITURES CLASSIFIED BY VOTE

General Revenue Fund

In Thousand $

		1983/84 Budget Estimates	1983/84 Transfers	1983/84 Total Authorized	Expenditures for the Year Ended 31 March '84	Expenditures for the Year Ended 31 March '83
Vote 1	DEPARTMENTAL SUPPORT SERVICES					
	Executive services	$ 1 390	—	$ 1 390	$ 1 274	$ 1 419
	Administrative services	14 035	—	14 035	13 712	10 810
		15 425	—	15 425	14 986	12 229
Vote 2	CONSTRUCTION AND MAINTENANCE OF HIGHWAYS					
	Program support	31 213	$ 1 787	33 000	32 963	33 598
	Improvement of primary highway systems	240 621	3 723	244 344	244 550	286 268
	Improvement of rural/local highways	147 813	(1 120)	146 693	146 665	169 280
	Financial assistance for rural/local highways	32 939	(96)	32 843	32 716	44 598
	Maintenance of primary highway systems	69 929	(3 785)	66 144	66 066	62 730
	Maintenance of rural/local highways	18 098	(162)	17 936	17 923	27 173
	Apprenticeship training	2 820	154	2 974	2 973	2 547
	Rural resource roads	41 167	5 978	47 145	47 116	37 261
	Pavement rehabilitation	49 723	(6 204)	43 519	43 360	45 732
		634 323	275	634 598	634 332	709 187
Vote 3	CONSTRUCTION AND OPERATION OF RAIL SYSTEM	9 800	—	9 800	7 977	10 082
Vote 4	CONSTRUCTION AND MAINTENANCE OF AIRPORT FACILITIES					
	Program support	709	80	789	761	815
	Construction of airports/airport maintenance	9 728	(198)	9 530	8 644	11 563
	Airport maintenance	2 152	118	2 270	2 137	2 089
		12 589	—	12 589	11 542	14 467
Vote 5	SPECIALIZED TRANSPORTATION SERVICES					
	Transportation planning and research	6 296	146	6 442	6 424	2 933
	Highway system user services	9 588	502	10 090	10 086	9 042
		15 884	648	16 532	16 510	11 975
Vote 6	URBAN TRANSPORTATION FINANCIAL ASSISTANCE					
	Program support	752	—	752	669	594
	Financial assistance (capital)	144 765	—	144 765	144 758	190 015
	Financial assistance (operating)	20 761	—	20 761	20 251	19 445
		166 278	—	166 278	165 678	210 054
	TOTAL DEPARTMENT	$ 854 299	$ 923	$ 855 222	$ 851 025	$ 967 994

REVENUE CLASSIFIED BY SOURCE

	1984	1983
Payment from Government of Canada		
Railway grade crossings	$ 4 434 110	$ 5 077 788
Other	175 856	343 539
	4 609 966	5 421 327
Fees, Permits and Licenses		
Motor Transport Branch	5 527 439	3 722 063
Airport revenue	178 556	193 896
Other	49 870	59 405
	5 755 865	3 975 354

Other Revenue		
Refunds of expenditure		
Previous years' refunds	1 610 998	3 165 256
Other	102 267	196 021
Sales of assets		
Land	174 122	349 809
Other	52 425	—
Miscellaneous		
Rentals	586 054	670 056
Other	723 241	(22 622)
	3 249 107	4 358 220
Total Revenue	$ 13 614 938	$13 754 901

Personnel Management Branch

Human resource management continued to change dramatically during the reporting period as all sectors of the economy, including government, adjusted their operations. In a positive sense, difficulties experienced in recent years relating to the recruitment of professional engineers and technologists and operational personnel, have diminished. As a result, positions that had remained unfilled have been staffed with high quality candidates. Turnover of staff remains low, at about three per cent.

Alberta Transportation encountered a substantial increase in employee relations problems during the year. This, plus a continuing reduction in mobility throughout the work force, has required the allocation of extra personnel and management resources to handle and resolve grievances.

The department had a maximum of 3625 salaried employees and recruited about 2500 non-permanent employees during the construction season. The branch participated in 783 non-management decentralized classification actions and submitted to the Personnel Administration Office 43 management classification requests.

The Organization Development section continued to expand its effective training and development program, designed to upgrade and improve the efficiency and effectiveness of all employees regardless of classification. Some 2605 employees participated in 49 in-house training programs. An additional 320 employees took courses co-ordinated by the Personnel Administration Office while 645 employees took courses provided by external sources. Rapidly changing technology, automation and related factors continue to dictate the need for a strong organization development service within the department.

In addition to recruitment and selection for 113 permanent positions and 116 Student Temporary Employment Program (STEP) appointees, the Personnel Branch has been extensively involved in the departmental downsizing. The department achieved the majority of the two per cent reduction in permanent positions through attrition. The remaining permanent employees were redeployed within the department with no loss of status.

The branch director and several managers were involved directly in activities related to the negotiation of master and divisional agreements.

The implementation of the Human Resource Management Information System, in progress for several years, has been affected by a decision to develop a common government system. Some departmental resources continue to assist the Personnel Administration Office in the implementation.

ENGINEERING DIVISION

Bridge Engineering Branch 12

F.C. Harvey
Executive Director

Contracts Engineering Branch 14

C.E. Shaul
Director

Design Engineering Branch 19

P.M. Evjen
Director

Materials Engineering Branch 17

L.W. Nichols
Director

Property Services Branch 23

P. Roche
Associate Director

Research and Development Branch 21

J. Konarzewski
Director

Engineering Division provides:

- engineering standards and specifications
- geometric, structural and materials design
- contract administration
- technical support

for the departmental construction programs including roadways, bridges, airports and ancillary projects. The division is also responsible for

- standards of right-of-way and land acquisition
- legal survey and conveyancing
- research and development co-ordination.

Functions of the Engineering Division are accomplished within six branches: Bridge Engineering, Contracts Engineering, Design Engineering, Materials Engineering, Property Services, and Research and Development Branches. Individual reports of each follow.

The continuation of a substantial level of funding for departmental construction programs in 1983/84, coupled with active competition in contract bid pricing by the construction industry, resulted in a net decrease in the composite construction cost index from 1982, and produced higher construction volumes performed per budget dollar spent. Contracting of grading work formerly carried out by day labour also added to the volume of contract work available to the industry. The reporting year saw a heavy workload in the engineering division branches to accommodate design and contract administrative requirements supporting this expanded construction activity. Through continuing use of private engineering consultants for assistance in preconstruction engineering and design, bridge design, materials engineering and legal surveys, and through increased use of computer graphics for drafting workload, requirements of the division were accomplished with existing staff. Vacant staff positions were eliminated where possible, resulting in a net two per cent reduction in permanent staff.

Continued economic pressures on the construction industry resulted in greater numbers of both creditor claims filed under the Public Works Act and in contract claims for road and bridge contracts handled by the division. Considering the sizeable number of active contracts, the incidence of contractor defaults was not large, although the bankruptcy of one major contracting firm involved 13 active contracts. Increased legal support service in both contractual and land expropriation issues was provided by the Department of the Attorney General through the Legal Services Section within Transportation.

During the reporting period, continued emphasis was given to reducing pavement roughness in new pavements through use of the profilograph and allowable roughness specification developed in 1982. A number of meetings with industry, further research, and strict field enforcement of requirements resulted in improved pavement-riding quality.

The policy of including gravel supply within construction contracts for some road base paving projects in localities where private commercial gravel sources exist was continued, resulting in economical utilization of the gravel resources in those areas through the competitive process and providing business opportunity to the commercial gravel supply sector.

Continued support was provided to Alberta Heritage Savings Trust Fund capital programs for Kananaskis Country regional roads and the bridge replacement component of the Irrigation Headworks and Main Irrigation System Program.

Bridge Engineering Branch

Bridge Engineering Branch provides bridge design, bridge construction and structural engineering for departmental programs. Its services consist of preliminary engineering, detailed design, materials acquisition, construction and construction liaison with regional bridge staff.

Services were supplied in four major areas: primary highway bridge construction, secondary and local road bridge construction, primary highway bridge maintenance and secondary and local road bridge maintenance.

In the primary highways bridge construction area, bridge structures were designed and built to accommodate expansion and upgrading of the province's primary highway system. These structures varied from 1500 millimetre diameter culverts to crossings of major rivers, such as the North Saskatchewan River bridge at Elk Point. Highway grade separations accounted for a major part of the budget expenditure.

Design, construction and major reconstruction of bridges on local and secondary roads, which also varied from culverts to major bridges, were provided.

Maintenance activities were provided for primary highway, secondary and local road bridges. Bridges were inspected, maintenance work planned and appropriate work performed. The program of restoring salt-damaged bridge decks by means of a concrete overlay was continued. Overlays included high-density concrete, latex-modified concrete and steel-fibre reinforced concrete.

In addition to the major work performed in these areas which are the direct responsibility of the Bridge Engineering Branch, engineering services were provided for programs administered by other branches and departments. The branch was responsible for new bridge structures required by the rehabilitation of the main irrigation canal systems in southern Alberta funded by the Alberta Heritage Savings Trust Fund. During the past year 36 bridges were completed.

Branch staff also provided engineering input into the administration of the department's Urban Transportation Financial Administration Program.

Major Bridge Construction Projects

BANTRY IRRIGATION CANAL, east of Brooks: the twinning of the Trans Canada Highway east of Brooks called for construction of a new bridge for westbound traffic across the Eastern Irrigation District's Bantry Canal. The existing bridge will remain in service to carry eastbound traffic.

BLINDMAN RIVER, west of Bentley: improvements to the intersection of Highways 12, 20 and 51 west of Bentley included construction of a new bridge to carry the north leg of the intersection across the Blindman River.

GRADE SEPARATION, west of Lake Eden: construction was begun on an overpass as part of a grade-separated connection between Highways 16 and 16X.

LETHBRIDGE NORTHERN IRRIGATION DISTRICT MAIN CANAL, south of Barons: a narrow substandard bridge was replaced with a concrete arch culvert in conjunction with reconstruction of Highway 23.

NORTH SASKATCHEWAN RIVER, south of Elk Point: construction was begun on a new bridge to replace a substandard, narrow, steel truss structure on Highway 41. In conjunction with the new bridge, the alignment of the highway through the valley will be improved by eliminating sharp curves at the approaches to the bridge.

BIG MOUNTAIN AND BALD MOUNTAIN CREEKS, south of Grande Prairie: construction of Highway 40 from Grande Prairie to Grande Cache included new concrete arch culverts to carry the highway over Big Mountain and Bald Mountain Creeks. The culverts are the largest constructed in the province and incorporate innovations for passing large trees and debris during flood.

SULLIVAN AND FLAT CREEKS, southwest of Longview: in conjunction with construction of the Highwood Trail access to Kananaskis Country, an existing one-lane steel bridge was replaced across Flat Creek and construction begun to replace a one-lane steel bridge across Sullivan Creek with modern structures. In addition to carrying recreational vehicles these bridges accommodate heavy industrial loads.

BEAVER RIVER, north of Spedden: a modern bridge was built to replace a substandard one-lane steel truss carrying Secondary Road 866 over the Beaver River. The new bridge accommodates heavy loads and wide farm machinery which previously detoured to adjacent bridges 16 kilometres from the secondary roads.

CPR OVERPASS at Hardisty: construction of an overpass was begun to replace a level crossing of the CPR tracks in the Town of Hardisty on Secondary Road 881. The overpass will remove the potential for collisions between trucks and trains carrying hazardous goods at this crossing.

ELBOW RIVER at Bragg Creek: construction was begun on a new bridge to replace a narrow one-lane steel truss on a local road in the Hamlet of Bragg Creek. The new bridge will carry two lanes with shoulders and a sidewalk.

BAPTISTE RIVER, northwest of Rocky Mountain House: in conjunction with improvements to the Sunchild Road, a new bridge was built to replace an existing substandard one-lane structure.

PEMBINA RIVER at Jarvie: construction began to replace a single-lane steel truss bridge on a local road with a modern structure. Existing concrete piers support a wider open deck which will enable farm machinery and heavy industrial traffic to cross the river.

FALLENTIMBER CREEK, south of Sundre: a modern bridge was constructed to replace a one-lane steel truss carrying a local road over Fallentimber Creek. The new bridge will allow wide farm machinery and heavy loads to use this crossing.

OTHER BRIDGE CONSTRUCTION PROJECTS

On Primary Highways *(River Bridges)*

HWY. NO.	PROJECT AND BRIDGE TYPE	FILE	
22	Lobstick River (widening)	13073	*
24	BRID Canal (steel girders)	79761	*
34	Goose Creek	74307	**
40	Big Mountain Creek (branch, culvert)	77324	**
49	Spirit River (widening)	70022	**
66	Canyon Creek (culvert) (Kananaskis Country)	78192	*
92	Beaver River (widening, steel girders)	71316	**

On Secondary and Local Roads *(River Bridges)*

HWY. NO.	PROJECT AND BRIDGE TYPE	FILE	
SR546	George Creek (culvert) (Kananaskis Country)	78201	*
SR785	LNID Canal Site 3	76511	
SR791	Carstairs Creek (culvert)	1425	**
SR884	Blood Indian Creek (culvert)	79498	**
SR899	Red Deer River, Empress (steel girders)	8132	
local	Battle River (salvage truss)	410	**
local	Crowfoot Creek	418	*
local	Sturgeon River	945	*
local	Rosebud River (salvage truss)	2409	*
local	Willow River	7922	*
local	Battle River (widening, steel truss)	9575	**
local	Willow Creek (salvage truss)	71572	**
local	Strawberry Creek (salvage truss)	72607	**
local	Tongue Creek (culvert)	73759	**
local	Williams Creek	74138	*
local	Wenzel River (steel girders)	76302	**
local	Bluerock Creek	78191	
local	LNID Canal Site 57A (concrete arch culvert)	78698	
local	Rat Creek	79553	*
local	LNID Canal Site 49	79568	

Note: Unless otherwise indicated, bridges are prestressed concrete girder-type construction.

* Completed in 1983/84 but started in a prior year.

** Begun in 1983/84 but carried over to 1984/85.

Construction and Reconstruction of Standard-Type Bridges

BRIDGE TYPE	PRIMARY HWYS.	DISTRICT ROADS	TOTAL
Standard	12	85	97
Culverts	100	240	340
	112	325	437

Bridge Repairs

BRIDGE TYPE	PRIMARY HWYS.	DISTRICT ROADS	TOTAL
Major	106	120	226
Standard	33	144	177
Culverts	22	14	36
	161	278	439

Contracts Engineering Branch

Contracts Engineering Branch is responsible for:

- preparation, tendering and administration of contracts for the construction of primary highways, secondary roads, roads to provincial parks, approach roads and airports
- assessment of contractor's claims and recommendations on the resolution of claims
- development and implementation of the Highway Illumination Program
- development of the schedule of rental rates for construction equipment
- co-ordination of environmental management activities
- administration of construction material supply and procurement.

The branch consists of four sections: Contracts Administration, Construction Claims and Standards, Environmental Management and Materials Purchasing and Administration.

Following are the highlights of the work accomplished by the branch during this reporting period, and a summary of materials used and a year-end statement of the inventory of the province's highway and road network.

Contracts Administration Section

Contracts Administration Section prepared and advertised 247 construction contracts during 1983/84. These included 126 contracts for grading, base and/or paving construction, 81 for gravel crushing, 34 for traffic signals, lighting and painting, and six miscellaneous contracts. The total value of these contracts, excluding asphalt material and engineering, was approximately $172 million.

An increasing demand for tender documents was evident during the year. Up to 80 tender documents were required for each contract tendered, including necessary internal copies. Tenders were made available to contractors at Edmonton, Calgary, Red Deer, Lethbridge, St. Paul and Peace River and advertisement of tenders was extended to local newspapers.

Contract administration procedures included checking tenders, processing 11 contract extensions with a value of $1.3 million, processing 83 letters of credit valued at $9.1 million, processing 33 subcontract approvals, processing 40 contract unit price approvals and making 39 applications to Treasury to increase contract commitments by a total of $7.9 million.

A word processing system was incorporated during the year for the contract specifications, notices and special provisions, allowing greater flexibility for revisions and improving the quality of contract documents.

Contract plans prepared by computer graphics were introduced into documents this year, replacing hours of drafting and hand lettering, and producing more plans in a shorter time.

The installation of project identification signs for construction projects was added this year. A sign, with the top portion supplied by the department and the lower by the contractor, is installed on each project by the contractor at the beginning and end of the construction site.

Final details and payment estimates prepared by district staff were audited to ensure that contract payments were according to the contract and department policy. Contractual final clearances and bonds were obtained and releases of holdback and letters of credit authorized. Third party claims under the Public Works Act and contract terms were handled. The department pursued a policy of ensuring that independent gravel truckers employed on Alberta Transportation contracts received proper payment by contractors in strict accordance to contract specifications.

Construction and mileage records were maintained, cost indexes calculated and reports prepared on construction and other details of the highway system.

Construction Claims and Standards Section

Construction Claims and Standards Section in conjunction with other branches and regional staff developed 16 agreements with engineering and architectural consultants to provide engineering studies, surveys, designs and contract supervision for roadway construction and architectural services for the construction of vehicle inspection stations and rest areas.

The Primary Highway Lighting Program featured the installation or improvement of lighting systems on 19 sections of primary highway passing through various towns and villages. At 10 other towns and villages, where the highway bypasses the municipality, the intersection of the highway and approach road was illuminated.

Other projects included the illumination of the interchange at the junction of Highway 2 and Secondary Road 684 in Peace River, the interchange at the junction of Highway 2 and 32 Street in Red Deer, seven other highway intersections and at locations adjacent to two vehicle inspection stations.

Of particular interest was the upgrading and modernization of the illumination at the Salisbury Corner interchange at the junction of Highways 14 and 14X. The system, two hundred and seventy-six 10 m and 13 m poles located close to the highway using mercury vapour fixtures, was redesigned to use fourteen 30 m high mast structures and thirty-eight 15 and 18 m poles with high pressure sodium fixtures. The use and placement of high mast poles is expected to reduce the number of vehicle-pole accidents and allow for future highway improvement without the need for additional lighting.

The department's annual Schedule of Rental Rates for Construction Equipment was updated to include newer equipment models and make minor revisions. The basic rates remain unchanged.

The section assessed and resolved a number of contractor claims relative to roadway and airport construction contracts.

Environmental Management Section

The Environmental Management Section provided liaison with the Alberta Energy and Natural Resources Fish and Wildlife Division, Alberta Culture, Alberta Environment and Alberta Recreation and Parks with respect to the environmental impacts of construction.

Design of grading projects was examined to determine environmental problems which might result. Concerns of the other Alberta agencies expressed during location study referrals were checked and, where necessary, remedial measures included in the design and contract documents.

Field monitoring of projects under construction and after completion was increased and problems resolved in the field. Designs of projects were critically examined and potential problems addressed prior to tender call.

Work in Kananaskis Country involved construction and postconstruction monitoring.

Material Purchasing and Administration Section

A total of 538 purchase orders for highway construction materials were placed to the approximate value of $129 million.

Liaison with the Purchasing Branch, highway contractors, district transportation engineers, project managers and suppliers continued, resulting in little or no delay or project shutdown.

An additional $2.2 million of drainage and fencing material was detailed to highway construction projects from Alberta Transportation's central service facilities at Edmonton and Airdrie.

Accounts payable functions were carried out for nine highway construction camps as well as Contracts, Materials and Design Engineering branches in the total of $31 million.

Bonding, insurance policies and final signatures were obtained on 247 highway construction contracts.

Summary of Materials

From April 1, 1983 to March 31, 1984, the following materials were used in contract construction work on provincial primary highways, secondary roads, airports, approach roads and provincial park roads:

First course gravel surfacing	215 911 m³
Subgrade backfill material	416 038 m³
Stabilized base course gravel	4 332 942 t
Cement stabilized base course (sand)	790 797 t
Asphalt stabilized base course (on cement stabilized)	231 053 t
Asphalt base pavement gravel	546 335 t
Asphalt surfacing gravel	3 178 957 t
Granular supply for culverts	17 244 m³
Gravel to dead hauls	47 206 t
Reclaimed and recycled asphalt pavement	267 644 t
Total asphalt used	261 035 t
Total cement used	62 757 t

These volumes of gravel and sand were removed from pits:

Gravel to road	6 224 651 m³
Gravel to stockpile	6 610 497 m³
Sand to road	181 464 m³

LENGTH OF ROADS

The lengths in kilometres of existing provincial primary highways, approach roads, and provincial park roads were:

Primary Highways	
Asphalt surface, 2-lane	10 279
Asphalt surface, 4-lane undivided	38
Asphalt surface, 4-lane divided	665
Asphalt surface, 6-lane divided	40
Gravel surface, 2-lane	1 314
Dust control, 2-lane	976
	13 312

Approach Roads	
Asphalt surface, 2-lane	302
Gravel surface, 2-lane	20
Dust control, 2-lane	33
	355

Park Roads	
Asphalt surface, 2-lane	246
Gravel surface, 2-lane	21
Dust control, 2-lane	35
	302

900 Series Secondary Roads *(preceding primary declaration)*	
Asphalt surface, 2-lane	20
Gravel surface, 2-lane	110
Dust control, 2-lane	23
	153

During the reporting period, 25 kilometres of secondary and other roads were designated as primary highways. The primary highway system, however, was reduced 12 kilometres due to the expansion of city boundaries.

PRIMARY HIGHWAY LIGHTING PROJECTS

Highways Through Towns and Villages

Alberta Transportation Systems

HWY.	THROUGH	NUMBER OF LUMINAIRES	
1	Strathmore	50	4-lane construction
2	Peace River	79	Extension of system through the interchange
3	Coaldale	111	4-lane construction
10	Rosedale	19	New alignment
15	Fort Saskatchewan	154	4-lane construction
43	Whitecourt	41	Conversion of old system
63	Fort McMurray	149	Extension of system through interchange and 4-lane construction

Cost-Shared Systems

2	Claresholm	58	Retrofit from mercury vapour to high pressure sodium
2	High Prairie	50	New system within corporate limits
2	Nampa	19	New system within corporate limits
2	Grimshaw	14	Extension of system to south corporate limits
2A	Penhold	35	New system within corporate limits
3	Crowsnest Pass, Urban Municipality of	77	Highway bypass within corporate limits
5	Cardston	39	Improved system within corporate limits
13	Killam	37	New system within corporate limits
15	Mundare	20	New system within corporate limits
41	Vermilion	23	Improved system within corporate limits
45	Two Hills	27	Improved system within corporate limits
52	Raymond	40	New system within corporate limits

Approach Roads to Towns and Villages

HWY.	ACCESS TO	NUMBER OF LUMINAIRES	
2	Clyde	8	
3	Coalhurst	9	
4	Warner	4	Additional lights required to accommodate intersectional improvements
9	Beiseker	16	Two intersections
16	Vermilion	10	Retrofit and 4-lane construction
16X	Spruce Grove	14	Two intersections
32X	Calgary	12	
43	Mayerthorpe	18	Retrofit (mercury vapour to high pressure sodium)
43	Cherhill	8	

At-Grade Intersections

JUNCTION	LOCATION	NUMBER OF LUMINAIRES	
1 & 21	E. of Strathmore	15	4-lane construction
1 & 36	W. of Brooks	14	4-lane construction
2	Peace River Airport	13	
16X & 60	W. of Edmonton	8	New highway
16X & 794	S. of Villeneuve	7	New highway
23 & 24	N. of Vulcan	9	Highway realignment
18 & 33	N. of Barrhead	17	Retrofit (mercury vapour to high pressure sodium)

Interchanges

HWY.	LOCATION	NUMBER OF LUMINAIRES
2	32 Street Interchange, Red Deer	73
14	Salisbury Interchange, Sherwood Park.	112

Vehicle Inspection Stations

HWY.	V.I.S.	SITE LIGHTING LUMINAIRES	ADJACENT HIGHWAY LUMINAIRES
3	Burmis	19	20
35	Grimshaw	10	15

Materials Engineering Branch

Materials Engineering Branch is responsible for:

- geotechnical engineering services and standards in support of all departmental programs
- testing and quality control standards and procedures for roadway and airport construction
- pavement inventory, performance monitoring, design standards and services for surfacing programs
- surfacing program recommendations and structural design
- departmental laboratory testing and mix design services
- aggregate supply and management
- training of materials inspection personnel
- specialized engineering services in materials-related matters.

Administration

In support of the department's commitment to high program levels, with reduced budgets and manpower, greater emphasis was placed on refining engineering techniques while maintaining a high level of service. This was accomplished through improved utilization of manpower, streamlined testing procedures, development of additional computer systems, acquisition of state-of-the-art testing equipment and improved employee efforts.

Aggregate Services Section

Aggregate Services Section is responsible for managing the aggregate supplies required for the department's construction and maintenance programs. This includes the location, testing, acquisition, assessment and allocation of aggregate; the provision of aggregate-related specifications and recommendations and standards on aggregate source reclamation.

During the year, 11 aggregate prospecting crews and one consultant located approximately 26.4 million cubic metres of gravel and 1.6 million cubic metres of sand.

Continued depletion of high-quality aggregate sources in some parts of the province — and the need to extend the life of pavements while reducing annual capital and maintenance costs — has increased the importance of aggregate quality assessment. The detailed assessment of 178 aggregate sources, each including analysis of laboratory test results, comparison with desired gradation specifications, evaluation of elimination and blending options, location and selection of suitable blend material sources, and final recommendation as to the treatment of the material for each individual source was conducted.

Additional responsibilities included initiation of the winter stockpiling program, and establishment and maintenance of standards and specifications covering pit operations and reclamation.

Drafting functions were converted from manual processes to a computerized interactive graphics system.

Geotechnical Services Section

Geotechnical Services Section is responsible for providing geotechnical investigation, analysis and design services and standards for the planning, design, construction and maintenance of roadways, airfields and bridges.

During the year, five crews investigated 34 bridge/culvert sites, requiring 2104 metres of drilling. Preliminary roadway and airport surveys required 17 694 metres of drilling. Consultants were retained for several geotechnical projects.

Slope stability remedial measures, foundation stabilization, erosion control and muskeg failures were the main areas of special investigation. Lime/fly ash injection, plastic and arch beam culverts and several new erosion control products were among the materials evaluated.

Surfacing Section

Surfacing Section establishes design standards and procedures and provides designs for the department's primary highway, secondary roads and airfield surfacing programs. Through pavement condition monitoring and inventory, recommendations are made for the programming of pavement rehabilitation and seal coat projects.

The section also prepares specifications for surfacing materials and construction; initiates orders for asphalt, cement and other stabilizing agents; and provides technical and professional assistance and advice with respect to surfacing matters.

The pavement evaluation unit continued to provide strength, smoothness and condition information for roadway and airfield programming and design purposes.

During the year, seven Benkelman Beam crews conducted 105 362 tests on 7394 kilometres of roadway. One Dynaflect crew performed 13 364 tests on 636 kilometres of roadway and 45 airports. Two roadmeter crews measured smoothness on 12 675 lane-kilometres of roadway and runway and rated the condition of 7998 kilometres of roadway. Skid resistance testing was performed on 7207 lane-kilometres of paved roadways, and 5975 metres of bridge deck.

Approximately 82 metres of coring and 277 metres of drilling and sampling were performed on 26 projects.

Frost probes, utilized for seasonal road ban protection of the highway system, were increased to 53 locations.

The section analyzed, interpreted and computer-stored quality control data from 70 base and paving construction projects. Section personnel provided three major reports, including evaluation of data and quality control on surfacing construction in 1983.

The section prepared pavement structural designs for 256 projects and developed 368 quantity/cost estimates in preparing 203 roadway design packages, which consisted of 65 crushing, 17 crushing for seal coat, six crushing for subsequent base construction, 33 granular base course, six cement treated base course, 31 combined base course and paving, 39 paving, and six reclaim/recycle paving projects. The section also prepared estimates for 43 seal coat chip washing and 30 seal coat application projects, extending over 1648 lane-kilometres.

Testing Services Section

Testing Services Section, through the Transportation Laboratory, provides services and standards in materials and quality control testing, mix design, materials inspector training and certification, test equipment supply, and evaluation of new materials and processes.

The Transportation Laboratory performed more than 152 000 tests on approximately 23 000 samples of soil, aggregate, asphalt, cement, paint and other materials. One hundred and fifty-four mix designs and investigations were performed on asphalt concrete and soil cement materials.

Fourteen materials training courses, involving 86 course-days were presented to 240 technologists and project managers involving 1494 days of training. A concrete training manual was developed and a concrete quality control course presented to materials technologists. Projects were supplied with 466 kits of testing equipment.

The field services unit visited 139 construction projects to monitor and assist with plant calibrations, testing procedures, quality control and testing problems. Investigation continued into such materials and projects as sulphur-extended asphalt, rubber asphalt, conventional and emulsified asphalt, seal coat compaction, and recycled asphalt concrete.

The section continued participation in the American Association of State Highway and Transportation Officials (AASHTO) materials reference testing program, the Canadian Asphalt and Mix Design Exchange Program and the Alberta Ready Mix Concrete (ARMCA) Program. A testing exchange of MC 250 asphalt products was also initiated with local suppliers.

Renovations to the Transportation Laboratory included improvements to environmental controls and a permanent training demonstration area with 12 self-contained workstations.

Design Engineering Branch

Design Engineering Branch provides the following services for all primary highway, secondary road and airport construction program projects:

- development and monitoring of geometric design and drafting standards
- provision of detailed geometric design and drafting services
- preparation of information for preliminary surveys and right-of-way requests
- grading program recommendations
- provision of computerized earthwork design quantities and preparation of contract design packages
- co-ordination of utility relocations
- development of detailed project construction schedules for contract provisions
- co-ordination and design of traffic signing
- initiation and preparation of highway designations
- co-ordination and management of computerized methods for design and processing of final earthwork quantities
- training of design, drafting and field personnel in computerized design and earthwork applications.

Highlights of the work accomplished for the reporting period are outlined for each of the four functional sections of the branch.

Roadway Design Section

The Roadway Design Section is responsible for developing and maintaining geometric design standards; preparing right-of-way requests and preliminary surveys; co-ordinating orders for and delivery of construction materials such as culverts and fencing materials; and performing detailed geometric design of all grading projects.

During the 1983/84 fiscal year, detailed preliminary survey instructions for 74 projects totalling 740 kilometres were provided to Regional Transportation district offices. These included multi-lane freeways and expressways, rural arterial and collector roads with their associated loops, ramps and service roads.

Detailed designs were completed on 62 projects, totalling 640 kilometres which included primary, secondary and miscellaneous roads. The majority of these designs were done by computer methods. One project was designed by the field staff and 13 by consultants under the supervision of the branch.

A total of 1230 kilometres of cross-section notes were reduced and plotted by computer for design purposes and field use.

Design Support Section

Drafting services in support of departmental project operations were provided to Contract Engineering, Design Engineering, Materials Engineering, Property Services and Equipment Branches and to the district offices. Plan preparation demands increased by 20 per cent over the previous year with more than 3000 engineering plans completed for highway construction program operations.

In order to meet construction schedules, approximately 5825 hours of additional drafting services were provided by casual wage employees, and private engineering consultant firms were employed to complete partial plans on four grading projects.

To counteract effects of drafting workload increases that have continually occurred during each of the last three years, a departmental contract was awarded to Intergraph Corporation to provide computer system facilities for automated drafting operations. In December, 1983 Design Support received four Intergraph System interactive workstations, one hardcopy unit and a Hewlett Packard pen plotter, which connected to the main VAX 11/780 computer system and in the department's Computer Services Branch. A technical word processing system (IBM SCRIPT/VS) was implemented for production of engineering manuals and for control of computer index information systems.

Management of the Final Earthwork Quantity Computer System progressed favourably with computer processing of final grading quantities for 541 kilometres of major highway projects, 781 kilometres of project overhaul, 370 earth borrow pits and three airport projects. Use of computerized methods increased approximately 15 per cent over the previous year. Approximately 75 per cent of all grading project finals were completed by computer methods.

The Design Engineering Branch Menu System was finalized and incorporated within departmental systems. This simplifies tasks associated with use of engineering systems for roadway survey, design and final quantity purposes, and extends the use of engineering computer systems to all 15 district Transportation offices via terminal facilities. A user reference manual was prepared to clarify use of Design Engineering Branch computer systems for engineering applications.

Special two-day training seminars were provided for all 15 Transportation district offices. In total, 60 field staff were trained to use new on-line time-sharing capabilities and the new menu system in conjunction with the Final Earthwork Quantity and Overhaul computer programs. Documentation, training and assistance was provided to 40 Design Engineering Branch staff and 13 drafting staff were trained to use the interactive graphics systems in Design Support Section drafting operations.

Pre-Contract Scheduling and Utilities Co-ordination Section

Pre-Contract Scheduling and Utilities Co-ordination Section arranges and co-ordinates clearances with utilities rights-of-way, and resolves other conflicts to facilitate construction of roadways. These activities are also undertaken to a partial degree for the construction of airfields and bridges.

During the reporting period, protection or relocation was arranged and co-ordinated for 393 pipelines, 353 kilometres of power lines and 547 kilometres of telephone cables.

The section also developed detailed project construction schedules for contract provisions to ensure orderly construction progress, and co-ordinated the planning, design, construction and maintenance of the Vehicle Inspection Station Program.

Special Projects Design Section

Special Projects Design Section is responsible for provincial highway designations; highway signage design; conceptual planning, site evaluation and detailed design for provincial, community/industrial airports designated within the Provincial Airport Development Program. Also, the section provides project management assistance for the Airport Terminal Building Program.

To accomplish this, the section develops and maintains geometric airport standards, initiates and monitors preliminary surveys and provides design quantities and estimates for the tendering.

During the reporting period, the section developed 27 conceptual plans for 13 projects, each with consideration for the airport zoning, wind analysis, site suitability and construction costs. Detailed engineering design was completed for eight new airports and design enhancements and additions for seven airports.

Runway lighting and marking designs were completed for 20 facilities. Three visual approach slope indicator systems were also designed. Construction of a major air terminal at Peace River continued under the Provincial Air Terminal Building Program. This project is funded through the Alberta Heritage Savings and Trust Fund and will be completed in mid-1984.

Work on the planning and design of a minor air terminal building facility for Wetaskiwin continued in liaison with the city officials. Construction tendering and start-up took place late in the reporting period.

Research and Development Branch

This year the role and organization of the Research and Development Branch were modified to better meet the current practical research needs of the department. The branch remained in the Engineering Division headed by the Director who reports to the Executive Director, Engineering Division.

The Department of Transportation's research and development efforts now focus primarily on practical and applied research to improve the development, maintenance and operation of the transportation physical plant (highways, roads, bridges and airports) including its equipment and safe operation. The modified role of the branch is:

- to co-ordinate all practical research projects to ensure they are designed, documented and followed through according to a scientific approach
- to avoid duplication of effort
- to ensure proper distribution of the results
- to undertake some special research projects directly.

The branch is the primary contact and co-ordinator for co-operative research with outside agencies, such as the Roads and Transportation Association of Canada (RTAC), Alberta Research Council and Alberta universities. The Transportation Library is the responsibility of the branch.

The branch handled 67 research projects, completed 20, undertook 33 new ones and investigated 31 topics for possible research inclusion.

New projects undertaken fell within six subject categories:

Transportation Safety

- evaluation of different types of snowplowable pavement markers
- evaluation of railway crossing recessed pavement markers
- evaluation of temporary road delineation materials
- evaluation of the Thrie beam guardrail
- evaluation of flagging material for snowplows
- evaluation of different types of fluorescent vests for flagpersons
- evaluation of ice warning devices for motorists

Road Maintenance

- evaluation of various permanent road delineation materials
- evaluation of cracksealer materials and procedures
- evaluation of graffiti removal products
- development of specifications for supply of lignosulphonates
- evaluation of calcium chloride-treated sand for winter maintenance
- development of an electrically powered culvert thawing device
- investigation of methods of monitoring chloride penetration on bridge decks

Application of High Technology

- evaluation of an airborne laser profiler to survey in remote and inaccessible areas
- evaluation of a new type of traffic monitor to determine need for passing lanes
- development of IBM PC interface between weigh-in-motion scales and mainframe computer
- evaluation of microprocessor-based sand/salt metering system for winter maintenance.
- development continued on the Mobile Highway Inventory System to video-log roads and gather physical highway inventory features at highway speeds

Materials Testing

- testing numerous candidate concrete sealers
- evaluation of plastic pipes for culverts

Environmental

- testing and developing new methods for erosion control using bio techniques,
- testing of new materials and concepts

Mechanical Equipment Improvement

- evaluation of Instachain to provide vehicle traction in snowy conditions
- development of an improved TV guidance system for paint machines
- evaluation of rust protection agents for mobile equipment
- evaluation of special long-life vehicle batteries.

Co-operative research sponsored nationally through the Roads and Transportation Association of Canada (RTAC) and receiving support from all provinces, included:

- production of Drainage Manual Volume 2
- design of railway/roadway crossings
- durable concrete repair techniques
- geometric design standards for low-volume roads
- pavement reflectance
- guardrail standards
- update of geometric design standards for Canadian roads and streets
- pavement condition rating system
- two-lane rural highway capacity and level of service
- B-train dolly converter
- de-icing effects on bridges
- uniform rules of the road
- bridge deck joint systems
- high-speed pavement strength testing vehicle
- special uniform crosswalks
- algorithms for scheduling and routing of transportation for the handicapped
- commercial vehicle driver performance.

Transportation Library

The Transportation Library provided a variety of information services to all branches, regions and districts, and to other provincial government agencies and to the public. The library contains approximately 10 000 books, 6000 technical reports, 400 periodical titles, 3000 reports in microfiche from the U.S. Federal Highway Administration and Urban Mass Transportation Administration and various statutes, regulations, standards, maps, annual reports and audiovisual items.

During the year, library staff responded to more than 1000 requests for information, ordered or renewed 1500 publications and loaned some 3300 items. Another 400 items were borrowed or loaned to different North American libraries. One hundred and seventy-five literature searches were conducted on various on-line bibliographic databases as part of the library's research service and closer contacts were developed with other major transportation libraries in Canada.

Major projects included designing new library facilities in the Twin Atria Building featuring improved reading and work areas for clients. After the move, the number of department staff using the library in person doubled. The employment of temporary staff made possible the production of computer-generated keyword indexes to conference proceedings (1971-1982) of RTAC, as well as technical reports of the Transport and Road Research Laboratory of Great Britain (TRRL).

Property Services Branch

The Property Services Branch is responsible for:

- monitoring and accepting land purchase agreements negotiated by regional property agents and clearing them for payment
- initiating expropriation proceedings under The Expropriation Act where necessary land cannot be purchased by negotiation
- legal surveys and registration of land acquired for transportation facilities
- administration of the Municipal Government Act and Public Highways Development Act with regard to closure and/or cancellation of public roads
- co-ordinating payment in lieu of taxes and handling all other documents affecting title to department-owned property.

In the reporting year the branch decentralized direct property management functions to the regions. The number of legal survey crews was reduced from 10 to eight, transferring more survey work to private surveyors as part of the department's privatization objective.

Branch responsibilities are divided into three functional areas, appraisal and negotiation, compensation, and legal surveys and conveyancing.

Appraisal and Negotiation

This section provided advice and assistance to the regional property agents and appraisers and monitored agreements reached for accuracy and acceptability prior to approval for payment. In total 1472 agreements were received and processed.

Thirty-one full expropriations were requested and 22 agreements signed under Section 30 of The Expropriation Act. Increased emphasis was placed on attempting negotiated settlements prior to expropriation hearings.

Seventy independent appraisals were performed for the department by qualified private appraisers.

Following decentralization of the department's land management function, an up-to-date Land Inventory System (LIS) was started on the mainframe computer to provide an information base for land management assistance to the regions.

Expropriations carried over from 1982/83	Full	52
	Section 30	44
New expropriations 1983/84	Full	31
	Section 30	22
Expropriations settled or terminated	Full	26
	Section 30	32

Compensation

Compensation payments for land purchased were:

Primary highways and secondary roads	$ 6 292 536
District roads	1 040 050
Stock advance	4 578 218
Airports	445 948
Land purchase fund	1 405 956
	$ 13 762 708

Approximately 21 400 title searches were made in Land Titles Office, Edmonton and 8000 in Land Titles Office, Calgary for Operational Planning Branch, regional offices and Property Services Branch. The searches were made to determine ownership for purposes of highway planning, negotiation, legal surveying and to determine encumbrances affecting payment of compensation.

Legal Surveys and Conveyancing

During the reporting period 370 legal surveys were completed for land required for transportation facilities. Of these, 220 were carried out by private surveyors involving 65 different surveyors and 150 were carried out by staff land surveyors. One thousand one hundred and eighty-five new road plans were registered at Land Titles Office.

A summary of activities follows:

Legal Surveys	
Requests brought forward from 1982/83	472
Requests received during 1983/84	295
Surveys completed during 1983/84	370
Carried forward to 1984/85	397
Conveyancing	
Titles received	61
Notification to Registrar cancelling roads	694
Letters of Abandonment	85
Municipal Road Closure Bylaws	186

REGIONAL TRANSPORTATION DIVISION

Construction Programming Branch 28

C.D. Burton
Director

Occupational Health and Safety Section 36

C. Kopeck
Manager

Operations Branch 33

E. Belsheim
Director

Regional Directors 37

Southern Region No. 1
C.A. Lendzion

South Central Region No. 2
B.W. Kathol

Central Region No. 3
D.J. Bussard

North East Region No. 4
H. Hetu

North West Region No. 5
J.O. Newnham

Peace Region No. 6
R.G. Sharp

The *Regional Transportation Division* is responsible for program development and management of field implementation of construction and maintenance of the provincial transportation system. The division is comprised of the Construction Programming Branch, Operations Branch and the Occupational Health and Safety Section, with field implementation handled by six regional directors located in strategic centres throughout the province.

Specifically, the division is responsible for programming, management and field delivery of the following elements:

- regional administration
- construction management
- construction and maintenance of primary highways
- construction and maintenance of approach roads
- construction of roads to provincial parks
- construction of vehicle inspection stations
- construction of secondary roads
- construction and maintenance of forestry roads
- construction and maintenance of improvement district roads
- resource roads improvement program
- construction of special projects
- construction of Kananaskis Country projects
- pavement rehabilitation
- construction and maintenance of campsites and rest areas
- construction, maintenance and operation of ferries
- maintenance and operation of forestry airstrips
- grants to counties and municipal districts
- grants to special areas
- Public Transportation Operating Assistance Grant
- Improvement District Trust Account Program
- construction of provincial and community airports
- maintenance and operation of provincial airports
- air transportation policy
- maintenance and operation of provincial airstrips.

During the 1983/84 season, generally favourable weather conditions resulted in all programs being delivered within budget guidelines.

Under the construction programs, improvements were made to approximately 5925 kilometres of roadways and maintenance operations were performed on approximately 41 068 kilometres of roadway under the primary highway and improvement district programs.

Regional Transportation Division staff worked successfully with local governments and improvement district councils in dealing with and resolving local transportation-related issues.

An analysis of Regional Transportation Division's total expenditures, by major categories of activity, is shown in Figure 1. Details of the work undertaken by Regional Transportation's branches follow.

EXPENDITURES

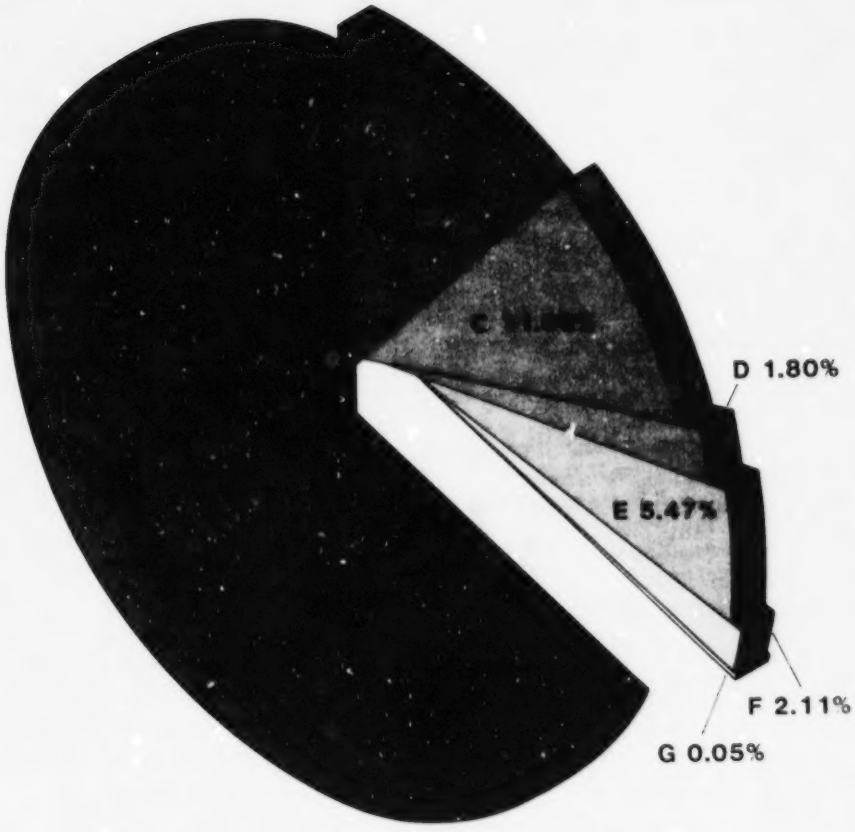


Fig. 1

A. Major construction of primary highways: secondary, approach, park and resource roads; pavement rehabilitation and special projects: 69.19%
B. Maintenance of highways and ferries: 10.32%
C. Construction and maintenance of improvement district roads: 11.06%
D. Construction and maintenance of airports and airstrips: 1.80%
E. Grants to counties, municipal districts, towns, villages and special areas: 5.47%
F. Regional administration: 2.11%
G. Other: 0.05%

Construction Programming Branch

The responsibilities of the Construction Programming Branch include:

- development of the department's road construction programs
- scheduling and delivery of construction programs
- control of the department's major budget components
- programming, development and management of all grant programs.

The work is handled by three sections: Program Development, Program Management and Municipal Services.

Program Development Section

The section is responsible for system and budget analysis, program development and advance scheduling of major capital programs:

- primary highway construction program
- pavement rehabilitation program
- Kananaskis Country program
- secondary road program
- resource road improvement program
- ring road and inter-city connections
- approach road construction program
- special projects construction program
- Highways 1 and 16 four-lane (twinning) program
- special programs (e.g. Highway 40).

This section is also responsible for advance program co-ordination of the primary construction schedule, the bridge construction program and the Vehicle Inspection Station Program.

Program Management Section

The Program Management Section is responsible for the management and delivery of:

- construction of primary highways (including the twinning program for Highways 1 and 16 and Highway 40 (Grande Cache to Grande Prairie special program)
- construction of approach roads
- construction of roads to provincial parks
- construction of vehicle inspection stations
- construction of secondary roads
- improvement of resource roads
- special projects
- pavement rehabilitation
- construction of provincial and community airports
- construction of roads in Kananaskis Country
- crushing under the Transportation Revolving Fund.

To ensure delivery of construction programs, the section co-ordinates, schedules and manages interdepartmental engineering activities, monitors construction activity and progress, maintains expenditure control to ensure delivery within budget and maintains liaison with outside agencies.

Additional responsibilities include analysis of industry capability and provision of support services to the Regional Transportation Division.

Construction Of Primary Highways

The main emphasis of the primary highways construction program continues to be upgrading of older highways, strengthening of existing pavement structures and extension of the graded and paved network to meet the demands of industrial, commercial, agricultural, commuter and tourist traffic.

Multilaning of highly congested routes remained a priority and construction was completed on:

- Highway 3 through the Town of Coaldale
- Highway 16 Elk Island Park east boundary to east of Secondary Road 834.

Construction carried forward for completion in 1984/85:

- Highway 1 east of Brooks to junction of Secondary Road 875
- Highway 1 Medicine Hat to Dunmore (including the CPR overpass in the City of Medicine Hat).

Construction was commenced on:

- Highway 16 east of Secondary Road 834 to junction Highway 15
- Highway 16 west of Innisfree to Mannville
- Highway 21 junction Highway 16 to north of Fort Saskatchewan.

Street improvements were made to 14 primary highways through 14 cities, towns and villages. Of these, five were carried forward from 1982/83 and four are carried over to 1984/85 for completion. The work was directed and supervised by consulting engineering firms working for the respective city, town or village under agreement with the department. Preliminary surveys, clearing and grading commenced on sections of Highway 40 between the Kakwa and Wapiti Rivers south of Grande Prairie.

Construction was completed on 1833 route-kilometres of which 183 kilometres were constructed under the twinning program, including the extension of new paved surfaces on 201 kilometres.

Expenditures for primary highway construction totalled $216 574 111. Different work undertaken by kilometre was:

	REGULAR PROGRAM	TWINNING PROGRAM HIGHWAYS 1 & 16
Grade	362.24	73.96
Granular base course	242.86	77.86
Asphalt stabilized base course	217.82	—
Cement stabilized base course	103.27	—
Asphalt surface	336.71	150.53
Recycled asphalt Pavement	10.12	—
Sulphur extended asphalt pavement	10.23	—
Preliminary engineering	322.97	57.47
Dust abatement	95.81	—
Seal coat application	466.96	—
Street improvement	14.32	—
Regravel	25.00	—
Regrade	16.23	—
Total task-kilometres	2224.54	359.82

Construction Of Approach Roads

Construction of approach roads to towns, villages and major hamlets located some distance from main highway routes continued to be co-ordinated with major projects in the area. Access projects to 21 communities were under way during 1983/84 (five were carried over from 1982/83, three carried over to 1984/85 for completion). Construction affected 52.68 route-kilometres. Expenditures totalled $3 873 339.

Work undertaken by kilometre was:

Grade	5.65
Gravel	1.33
Granular base course	4.29
Asphalt stabilized base course	16.51
Cement stabilized base course	23.93
Asphalt surface	18.93
Preliminary engineering	2.18
Seal coat application	4.51
Total task-kilometres	77.33

Construction Of Roads To Provincial Parks

A total of 33.38 route-kilometres of road was constructed to provincial parks for an expenditure of $3 613 416.

Major projects, including completion of base course surfacing to Moose Lake Provincial Park, paving to Vermilion Provincial Park and recycling pavement to Little Bow Provincial Park were carried forward for completion in 1984/85.

Work undertaken by kilometre was:

Grade	4.99
Granular base course	18.31
Asphalt stabilized base course	1.34
Cement stabilized base course	1.34
Asphalt surface	1.81
Recycled asphaltic concrete pavement	17.74
Reclaimed asphaltic pavement	16.50
Preliminary engineering	8.54
Total task-kilometres	70.57

Construction Of Vehicle Inspection Stations

The Vehicle Inspection Station Program involves construction of entrance, exit, bypass lanes, parking areas and site development for these facilities.

Projects carried forward from 1982/83 at the Burmis, Grimshaw and Vermilion stations were completed. Major construction began at the Coutts, Demmitt and Dunmore stations, and was carried forward for completion in 1984/85. Expenditures totalled $2 400 608.

Construction Of Secondary Roads

Secondary road network improvements remained a major priority with municipal and improvement district councils. Improvements in various construction categories were undertaken on 2830 route-kilometres of secondary road in preparation for asphalt surfacing, an increase of 14.1 per cent over the previous year.

Improvements were made to secondary roads through 10 towns and villages. The work was directed by consulting engineering firms working for the urban municipalities under agreement with the department.

Three projects were performed under an agreement with Keyano College as a training program for equipment operators under actual field conditions.

Expenditure for the program totalled $92 118 815.

Work undertaken by kilometres was:

Grade	551.46
Granular base course	312.72
Asphalt stabilized base course	343.83
Cement stabilized base course	90.16
Asphalt surface	170.04
Preliminary engineering	572.09
Dust abatement	772.83
Seal coat application	270.63
Street improvement	4.62
Regravel	145.06
Construction engineering	18.27
Gravel	33.42
Recycle asphalt pavement	11.26
Total task-kilometres	3296.38

Special Projects

Under the Special Projects Program $3 739 040 was spent on improvements to Highway 67.

Grading on Highway 67 from south of 20th baseline to west of Nipisi Lake was completed in 1983/84.

Work undertaken by kilometre was:

Grade	16.53
Preliminary engineering	33.88
Total task-kilometres	50.41

Improvement Of Resource Roads

Demand continued for improvements to roads carrying resource and public traffic. High standard roads were constructed to expedite operation of resource and industrial traffic year round and to reduce the impact on surrounding roads in the area.

Improvements were made to 739.48 route-kilometres of road for an expenditure of $47 115 644.

Work undertaken by kilometre was:

Grade	269.85
Gravel	15.44
Granular base course	212.22
Asphalt stabilized base course	124.51
Asphalt surface	145.18
Preliminary engineering	112.85
Seal coat application	.60
Dust abatement	65.88
Street improvement	4.56
Total task-kilometres	951.09

Pavement Rehabilitation

Increased traffic volumes, heavier loading, an ageing pavement system and generally warmer temperatures (as experienced in Alberta in recent years) has increased the severity of stress on the province's paved highways. Many older pavements require restoration, repair and strengthening. To protect the existing investment and structural integrity of pavement structures, a program of pavement rehabilitation was continued and significant progress made in restoring older pavements.

Five projects included recycling existing asphaltic pavement in areas where raw aggregate is in short supply.

Pavement rehabilitation was undertaken on 386.45 route-kilometres of highways at a cost of $43 359 535.

Work undertaken by kilometre was:

Granular base course	19.43
Asphalt surface	418.68
Recycled asphalt concrete pavement	19.33
Reclaimed asphalt pavement	22.55
Total task-kilometres	479.99

Airport Construction: Provincial And Community Airports

A major provincial airport project in the reporting period involved completion of construction of a new gravel runway forestry airport at Loon River. Expenditures were mainly related to the upgrading of facilities at other provincial airports to meet safety and operating requirements.

The community airport category saw completion of new airports at Empress and Elk Point and continuation of airport construction at Forestburg. Construction began on new airports at Bassano, Beiseker and Eaglesham.

Additional projects included pavement overlays and other rehabilitation work at older airports and acquisition of land for future construction.

In 1983/84 the program provided grants totalling $215 000. These were applied to development of airport terminal buildings at 11 community airports.

Expenditures incurred in the construction of airport facilities totalled $8 644 060.

CONSTRUCTION OF PROVINCIAL AIRPORT FACILITIES
Expenditures for Year Ended March 31/1984

AIRPORT LOCATION	AIRPORT NO.	TYPE OF WORK	TOTAL EXPENDITURES
Calgary	89	Purchase asphalt sealant	$ 2 244
Calling Lake	104	Preliminary engineering, clearing	274 007
Cooking Lake	87	Land purchase, survey	207 578
Fairview	55	Non-directional beacon	21 428
Fort Chipewyan	28	Repair runway, replace power poles	7 871
Fort Vermilion	26	Maintenance garage	70 955
Fox Creek	39	Set up trailer, install plug-ins	4 461
Grande Cache	40	Lighting	12 630
Janvier	16	Runway lighting	72 867
Jasper/Hinton	23	Install microwave landing system	458 666
		Site preparation microwave landing system	14 370
Lac La Biche	8	Repair taxiways in development area	46 509
		Construct maintenance garage, misc. engineering	156 925
Lloydminster	103	Development area	18 121
Loon River	68	New airstrip	259 100
		Water bomber base	88 548
Manning	42	Seal coat	9 899
		Lighting	12 728
Pincher Creek	2	Drainage, taxiway repair	67 696
Slave Lake	50	Runway overlay	1 127 865
		Visual approach slope indicator system	29 796
Swan Hills	80	Gas line installation	10 232
Wabasca	85	Grading, gravelling, stockpiling	626 533
Whitecourt	6	Grading	125 456
		Visual approach slope indicator system	71 454
Head Office			14 305
			28 373
			$ 3 840 617

CONSTRUCTION OF COMMUNITY AIRPORT FACILITIES
Expenditures for Year Ended March 31, 1984

AIRPORT LOCATION	AIRPORT NO.	TYPE OF WORK	TOTAL EXPENDITURES
Barrhead	9	Pavement rehabilitation	$ 62 782
Bashaw	114	Land purchase survey	155 786
Bassano	37	Grading	231 632
Beiseker	109	Survey, design, grading, paving	417 298
		Lighting	14 934
Boyle	117	Survey, engineering assistance	1 125
Castor	69	Air terminal building grant	25 000
Claresholm	33	Pavement patching, runway marking	12 971
Cold Lake	70	Air terminal building grant	25 000
DeBolt	111	Land purchase, survey	83 443
Drayton Valley	52	Air terminal building grant	5 000
Drumheller	32	Lighting	14 333
		Final payment on paving contract	5 865
Eaglesham	108	Grading	231 144
Elk Point	58	Paving	464 649
		Lighting	26 365
Empress	110	Air terminal building grant, paving	405 449
		Lighting	18 903
Fairview	55	Overlay	567 195
		Lighting	31 385
Foremost	90	Seeding	4 620
Forestburg	105	Paving, seeding	273 789
		Lighting	32
High Prairie	54	Purchase monitor receiver	3 268
Innisfail	79	Overlay	157 404
Killam/ Sedgewick	64	Air terminal building grant	5 000
Lacombe	41	Overlay, air terminal building grant	224 245
La Crete	116	Preliminary survey, soils test	5 074
Milk River	91	Grading	43 373
Olds/Didsbury	45	Complete construction air terminal building grant, grading	35 780
		Lighting	15 197
Ponoka	46	Survey, master plan, air terminal building grant	36 729
Red Deer	31	Survey, sewer trunk line	353 316
		Lighting	26 144
Rimbey	74	Preliminary survey, soils evaluation	11 877
Smoky Lake	17	Balance of land purchase	5 000
Spirit River	49	Air terminal building grant	25 000
Taber	35	Complete runway construction, air building terminal grant	611 656
		Lighting	40 380
Valleyview	47	Brush clean-up, seeding, fencing	16 661
Vauxhall	48	Air terminal building grant, seeding	30 781
Viking	82	Weed control	1 015
Warner	98	Grading	51 643
Westlock	25	Air terminal building grant	25 000
			$ 4 803 443

Municipal Services Section

The Municipal Services Section is responsible for the planning, program development and management of construction and maintenance programs in improvement districts:

- improvement district road construction
- improvement district road maintenance
- improvement district trust account
- forestry roads construction and maintenance

The section also administers and controls grant programs for towns, villages and municipalities including:

- grants to counties and municipal districts
- grants to special areas
- Engineering Assistance Program
- Public Transportation Operating Assistance Grant Program

Municipal Services maintains liaison with other government departments and agencies, and interdepartmentally, to effect necessary approvals and agreements for construction projects in these programs.

Improvement District Construction

A total of $15 723 627 was expended on capital construction projects on local and secondary roads within 15 improvement districts. Through the Economic Stabilization Program $5 million was provided for road construction in improvement districts. An amount of $10 139 840 was provided for construction of access and internal roads under the Indian Reserve and Metis Settlement Access Program.

The Public Lands Division of Alberta Energy and Natural Resources continued to open new lands for settlement and the department constructed 61.1 kilometres of access road at a cost of $2 116 202.

Eleven improvement district hamlets benefitted from the Hamlets Streets Assistance Program through an expenditure of $285 527 on road and street improvements.

Improvement District Maintenance

There are 22 594 kilometres of secondary and local roads in improvement districts and 432 kilometres of public roads within Indian reserves. These required an expenditure of $14 018 920 for the summer and winter maintenance operations.

Improvement District Trust Account

Alberta Municipal Affairs provided the department with $21 118 774 from tax revenues for transportation projects in improvement districts.

The work undertaken with trust funds on improvement district roads, by kilometre, was:

Graded	336.7
Gravelled	5 060.2
Oiled (dust abatement)	8.4
	5 405.3

Construction and Maintenance of Forestry Roads

During the year, $3 525 863 was expended on construction and maintenance of forestry roads, a total of 3685 kilometres of roadway. Projects undertaken were established through consultation with the Alberta Forest Service Branch of Alberta Energy and Natural Resources.

Grants to Counties and Municipal Districts

The 30 counties, 18 municipal districts, and Municipality of Crowsnest Pass received $30 407 446 this period. This includes $4 864 373 from the Economic Stabilization Program.

Regular road grant	$ 21 770 296
Economic Stabilization Program	4 864 373
Special grants	3 001 008
Hamlet Streets Assistance Grant	621 769
Municipality of Crowsnest Pass (transition grant)	150 000
	$ 30 407 446

Grants to Special Areas

The department provided a regular grant of $1 528 000 to the Special Areas Board to assist with required capital road construction projects within Special Areas 2, 3 and 4. An additional $100 000 was provided under the Economic Stabilization Program.

Engineering Assistance Program

Under the Engineering Assistance Program $680 966 was provided to counties, municipal districts and special areas to assist with required engineering services on regular road grant projects. The grant is based on the level of the regular road grant and is intended for engaging private engineering consultants.

Public Transportation Operating Assistance Grant

This was the fifth year of the six-year Public Transportation Operating Assistance Grant for transportation services to senior citizens, disabled and handicapped persons.

The $2 per capita grant program is provided to all towns, villages, counties, municipal districts, improvement districts and special areas.

Grant funds were allocated as follows:

Towns	$ 672 188
Villages	93 506
Counties	444 530
Municipal districts	193 414
Improvement districts	146 434
Special areas	12 084
	$ 1 562 156

IMPROVEMENT DISTRICTS

Expenditures for Year Ended March 31, 1984

IMPROVEMENT DISTRICT	TRUST FUNDS	MAINTENANCE	CONSTRUCTION	FORESTRY ROADS
1	$ 3 250 071	$ 513 503	$ 350 857	$ —
5	—	62 704	—	—
6	256 000	416 727	74 980	221 507
7	60 000	94 540	582 611	—
8	615 000	791 773	403 998	312 508
10	3 735 470	917 394	646 686	522 492
14	2 262 003	1 022 913	2 581 021	216 155
15	1 282 780	366 739	1 115 592	11 573
16	2 282 000	1 251 662	1 775 763	388 612
17	2 245 000	2 659 888	4 126 188	863 999
18	2 680 000	1 431 456	1 520 860	358 201
19	418 500	532 725	1 744 858	45 849
20	536 950	698 295	2 223 898	341 677
21	460 000	825 970	1 452 755	132 263
22	675 000	1 027 788	2 758 879	41 083
23	500 000	944 974	1 766 411	69 944
	$ 21 228 774	$13 559 051	$23 125 356	$3 525 863
Indian Reserves				
DISTRICT				
2	—	109 312	774 559	—
4	—	127 401	128 659	—
6	—	96 650	833 646	—
7	—	23 286	1 240 545	—
9	—	53	100 347	—
11	—	71 508	1 856 434	—
12	—	4 931	4 552 964	—
13	—	10	450 653	—
15	—	26 718	202 033	—
	—	459 869	10 139 840	—
	$21 228 774	$14 018 920	$33 265 196	$3 525 863

GRANTS TO COUNTIES AND MUNICIPAL DISTRICTS

Expenditures for Year Ended March 31, 1984

COUNTY	NO.	EXPENDITURE
Athabasca	12	$ 1 213 890
Barrhead	11	587 897
Beaver	9	541 212
Camrose	22	711 255
Flagstaff	29	624 548
Forty Mile	8	967 331
Grande Prairie	1	1 289 670
Lacombe	14	546 615
Lac Ste. Anne	28	680 365
Lamont	30	501 872
Leduc	25	633 467
Lethbridge	26	719 805
Minburn	27	555 321
Mountain View	17	553 369
Newell	4	556 613
Paintearth	18	429 660
Parkland	31	857 086
Ponoka	3	568 526
Red Deer	23	747 354
St. Paul	19	728 067
Smoky Lake	13	545 183
Stettler	6	768 450
Strathcona	20	561 207
Two Hills	21	514 741
Thorhild	7	619 654
Vermilion River	24	741 527
Vulcan	2	729 365
Warner	5	610 927
Wetaskiwin	10	622 853
Wheatland	16	501 596
MUNICIPAL DISTRICT	**NO.**	**EXPENDITURE**
Acadia	34	233 792
Bonnyville	87	603 868
Cardston	6	396 980
Fairview	136	382 740
Foothills	31	662 693
Kneehill	48	558 455
Peace	135	235 898
Pincher Creek	9	359 564
Provost	52	425 673
Rocky View	44	862 894
Smoky River	130	816 413
Spirit River	133	457 642
Starland	47	438 499
Sturgeon	90	651 846
Taber	14	654 583
Wainwright	61	570 652
Westlock	92	1 023 963
Willow Creek	26	630 846
Municipality of Crowsnest		150 000
Special Areas		61 020
		$ 30 407 447

ENGINEERING SUPPORT

Expenditures for Year Ended March 31, 1984

COUNTY	NO.	EXPENDITURE
Athabasca	12	$ 17 488
Barrhead	11	20 004
Beaver	9	6 872
Camrose	22	12 567
Flagstaff	29	15 503
Forty Mile	8	22 540
Grande Prairie	1	28 000
Lacombe	14	13 000
Lac Ste. Anne	28	16 000
Lamont	30	11 000
Leduc	25	15 000
Lethbridge	26	15 007
Minburn	27	12 205
Mountain View	17	14 226
Newell	4	14 005
Paintearth	18	8 535
Parkland	31	20 000
Ponoka	3	15 000
Red Deer	23	13 595
St. Paul	19	16 000
Smoky Lake	13	9 990
Stettler	6	16 051
Strathcona	20	10 000
Two Hills	21	11 695
Thorhild	7	14 648
Vermilion River	24	20 000
Vulcan	2	15 675
Warner	5	19 547
Wetaskiwin	10	12 645
Wheatland	16	13 000
MUNICIPAL DISTRICT	**NO.**	**EXPENDITURE**
Acadia	34	3 629
Bonnyville	87	13 000
Cardston	6	8 302
Foothills	31	15 000
Kneehill	48	12 431
Pincher Creek	9	9 229
Provost	52	10 007
Rocky View	44	19 000
Smoky River	130	16 000
Spirit River	133	4 006
Starland	47	10 659
Sturgeon	90	16 000
Taber	14	17 254
Wainwright	61	10 959
Westlock	92	6 178
Willow Creek	26	15 246
Special Areas		44 268
		$ 680 966

GRANTS TO SPECIAL AREAS

Expenditures for Year Ended March 31, 1984

Grant to Special Areas Board	$ 1 528 000
Grant to Special Areas Board (Economic Stabilization)	100 000
	$ 1 628 000

Operations Branch

During the year ended March 31, 1984 the Operations Branch was responsible for co-ordinating and monitoring:

- maintenance of primary highways
- construction of campsites and rest areas
- maintenance and operation of ferries
- administration and operation of nine construction camps.

Operations Branch's mandate includes developing and monitoring standards of primary highway maintenance, equitable distribution of maintenance allocations throughout the province, overall responsibility for planning programs involving rest areas, campgrounds, ferry system and department maintenance yards, and supervision and direction of nine construction crews. The branch was also involved in the central registry, dispatches and monitoring of all trucking and equipment requirements for completion of the Winter Gravel Stockpiling Program.

Maintenance of Primary Highways

This year marked the start of significant initiatives to privatize a number of maintenance functions, specifically in campground maintenance, snowplowing local roads, guardrail and sign installations and seeding of highway rights-of-way. The branch was charged with development of specifications and managing implementation of these.

Maintenance of primary highways accounted for expenditures of $60 615 529. Types of roads maintained and amount in kilometres are:

	GRAVELLED	OILED	PAVED
Primary Highways	1318.88	960.03	11 775.47
Access Roads	19.31	28.76	256.00
	1338.19	988.79	12 031.47

Erosion Control Program

A total of 174 erosion control projects were completed during the 1983/84 construction season, including a total of 18 332 acres of right-of-way, borrow areas and gravel pits seeded to grass and fertilized along primary highways, secondary roads, resource roads, improvement district and local roads, airports and Kananaskis Country. The expenditure was $1 889 977. A total of 22 shifts were lost due to adverse weather.

4-H Clean-up Program

During the 1983/84 4-H Clean-up Campaign, 7352 children representing 464 clubs participated in the clean-up of Alberta highway rights-of-way. A total of 6833 kilometres were cleaned with 54 211 bags of litter being collected. The 464 clubs earned $116 331. The expenditure for the program was $218 450.

Signing

Major signing was completed on all construction projects with the placement of approximately 7000 signs. Also, 91 signs with break-a-way bases were installed on existing and new projects. The installation of traffic and crosswalk signals was completed at 15 locations.

Guardrail Program

Raising of substandard guardrail to appropriate heights and installing of guardrail on new projects totalled 127 700 metres.

Approximately 8900 road edge delineators were installed in conjunction with this work.

Seal Coating Program

The department's two seal coat camps seal coated 481.71 kilometres of pavement surface on the provinces primary highway system.

Also 247.04 kilometres of paved roadway were sealed on the secondary road system and 4.51 kilometres on approach roads. A high float emulsion seal was applied to 19.4 kilometres of primary highway previously oiled.

The sum of $867 116 was spent on crushing suitable rock chip material and $558 321 for washing crushed chips.

Adverse weather impeded progress resulting in a portion of the program not being completed. However, as the construction season progressed, priorities were established and the most necessary work completed. Those projects scheduled, but not completed, were carried over to 1984/85.

Surfacing and Base Course Program

A total of 74.95 kilometres of roadway was paved by the department's camp during the 1983 construction season, involving projects on Highways 45 and 47 and Secondary Road 748. Expenditure for all work was $4 364 595. The paving plant and ancillary equipment was sold following completion of work.

The department's base course camp completed 29.37 kilometres of base course work on Secondary Road 795 from Calmar south, the access to Wizard Lake and Highway 47 from north of Embarras to south of Weald. Although unfavourable weather conditions hampered progress, the completed work was of excellent quality. The total cost was $3 414 614.

Maintenance and Operation of Ferries

During the year ended March 31, 1984 the Operations Branch was responsible for overseeing and monitoring the operation and maintenance of eight ferries throughout the province. In addition, Alberta Transportation shared the cost of operating and maintaining Meridian Ferry north of Lloydminster with the Province of Saskatchewan on a 50-50 basis.

A new timber scow was constructed for the Crowfoot Ferry Crossing to more efficiently accommodate local traffic and handle large farm implements.

Total expenditure was $1 128 946.

Construction of Campsites and Rest Areas

Operations Branch, through regional and district offices, continued its program of upgrading existing campsites. During the year, the Edson Rest Area facility was completed and a rest area was constructed on Highway 63, near Wandering River.

MAINTENANCE OF PRIMARY HIGHWAYS

Expenditures for Year Ended March 31, 1984

DISTRICT	EXPENDITURE
1	$ 2 333 223
2	4 741 086
3	2 822 375
4	7 691 112
5	3 400 670
6	6 576 049
7	5 885 805
8	4 157 565
9	3 217 818
10	3 706 242
11	3 740 085
12	3 221 096
13	3 190 929
14	2 593 047
15	2 644 490
HEAD OFFICE	
Administration and miscellaneous	396 269
4-H Clean-up	221 926
Equipment operators' training	75 742
	$ 60 615 529

OPERATION & MAINTENANCE OF FERRIES

Expenditures for Year Ended March 31, 1984

FERRY	LOCATION	EXPENDITURE
Berrymoor	N. Saskatchewan River	$ 63 779
Bleriot	Red Deer River	63 777
Crowfoot	Bow River	95 432
Crowfoot		138 221
Finnegan	Red Deer River	81 720
Klondyke (Vega)		74 693
Klondyke (Vega Replacement)	Athabasca River	40 584
Klondyke (Vega) (Water Well)		12 006
La Crete	Peace River	243 131
Meridian	Lloydminster (50% cost share)	58 705
Rosevear	McLeod River	82 348
Shaftesbury	Peace River	169 550
		$ 1 128 946

CONSTRUCTION OF CAMPSITE & REST AREAS

Expenditures for Year Ended March 31, 1984.

DISTRICT	
1	$ 36 500
2	15 215
3	—
4	323 979
5	—
6	38 344
7	4 956
8	444 527
9	11 273
10	133 316
11	206 918
12	59 487
13	5 223
14	—
15	13 547
	$ 1 293 285

CONSTRUCTION OF CAMPSITE & REST AREAS

Expenditures for Year Ended March 31, 1984.

JOB NO.	CAMPSITE	EXPENDITURE
A770C	Suffield1	$ 7 278
A770F	Bow Island	4 874
A770G	Dunmore	9 173
A770H	Etzikom Truck Turnout	15 175
B770A	Island Lake	15 215
F770A	Crossfield	286 664
F770B	Highwood	1 128
F770C	Field	36 187
J770A	Pine Lake	13 343
J770B	Blindman	5 000
J770C	Buck Lake	10 001
J770K	Alix	10 000
K770A	Amisk Creek	7 040
K770B	Viking	8 276
K770C	Vegreville	118 000
M771U	Elk Point	23 200
M771V	Ernestina	5 359
M771	W. Lower Therien	15 118
M771X	Minnie Lake	5 913
M771Y	Hangingstone	4 785
M771Z	Truck Stop	43 917
M772A	Wandering River	108 625
N770K	Bretona	4 956
P770Q	Preliminary Survey	434 527
P770R	Campsites	10 001
R770E	Holmes Crossing	11 273
V771C	Watino Camp	21 131
V771D	Little Smokey	38 356
W770H	Iosegun	183
W770K	Valleyview	5 040
Z770A	High Level	8 719
Z770B	Boyer River	1 817
Z770C	Fort Vermilion	1 191
Z770D	La Crete	1 820
		$ 1 293 285

Aviation Section

The Aviation Section is responsible for the preparation of the Provincial Airport Development Program.

During the year meetings were held with local officials in many communities to provide information on the Provincial Airport Development Program, establishment of local airport commissions and advice and assistance in solving local operating problems. Several applications were received requesting assistance for airport development or improvement. Site selections and evaluations were carried out at various locations which are in the planning stages for future development.

Liaison was continued with aviation-related industries and organizations. The Aviation Section was represented on bodies such as Edmonton Area Air Services Authority, Transport Development Authority of Calgary, Alberta Aviation Council, Air Transport Association of Canada, Canadian Aeronautics and Space Institute and International Northwest Aviation Council.

Background information, technical advice and position papers for senior management were provided on a variety of aviation subjects as part of departmental initiatives or in response to federal activities in both operational and policy areas of air transportation.

During the summer of 1983, official opening ceremonies were held for three community airports (Killam/Sedgewick, Olds/Didsbury, Vauxhall) and the new terminal building at the Fort Vermilion Airport.

Air Transportation Policy

During 1983/84 expenditures of the headquarters component were $345 548 which covered planning, programming and administration of aviation activities within the terms of reference of Regional Transportation.

Included were grants to Alberta Aviation Council and its subsidiary sector, the Civil Air Rescue Emergency Services (CARES). The CARES system provides training to flying personnel in the specialized task of airborne searching and the organizational structure to mount searches for missing aircraft or other emergency situations.

Airport Operations and Maintenance

The Aviation Section is responsible for co-ordinating the operation and maintenance of 15 provincial airports. With the exception of Fort Vermilion, each airport has a full-time staff reporting to the director of the region in which the airport is located.

The Aviation Section provides support and develops standards and guidelines for maintenance and all operations. The section also has responsibility for the civilian Medley Air Terminal at Canadian Forces Base Cold Lake, and for a non-directional radio navigation beacon at the St. Paul community airport.

Expenditures on these operations and maintenance activities totalled $1 892 077.

AIRPORT OPERATIONS AND MAINTENANCE
Expenditures for the Year Ended March 31, 1984

Cooking Lake	$ 76 936
Edson	87 068
Fort Chipewyan	155 777
Fort Vermilion	30 205
Grande Cache	104 506
Grande Cache (hazard beacon)	10 355
High Level	164 109
Jasper-Hinton	124 899
Lac La Biche	103 025
Lloydminster	144 878
Manning	126 394
Morley Air Terminal	105 366
Pincher Creek	151 116
Rocky Mountain House	100 749
Slave Lake	128 965
St. Paul (Beacon)	10 306
Swan Hills	126 579
Whitecourt	140 854
	$ 1 892 077

Occupational Health And Safety Section

The Occupational Health and Safety Section is responsible for development and management of the department's programs for occupational health and safety, employee safe use of vehicles and equipment, and safety on the worksite such as construction zone safety.

To discharge these responsibilities and achieve uniform and consistent safety standards throughout the department, the section provides functional direction to six regional safety officers who are responsible for co-ordinating and implementing health and safety programs within each region.

The management and co-ordination of health and safety programs for other areas of the department is handled directly out of section headquarters. The section maintains liaison with other government departments, boards and agencies and deals extensively with the construction industry.

The department continued its active involvement in the Alberta Government Occupational Health and Safety Program. A senior department official is a member of the joint Government/AUPE Occupational Health and Safety Committee. Twenty-five departmental joint worksite health and safety committees comprised of employee and management representatives met regularly to review accidents, deal with health and safety concerns and make recommendations on corrective action.

The section co-ordinated employee participation in hearing conservation, pulmonary fibrosis and medical surveillance programs, as well as a variety of health education programs.

The provision of safety training courses and on-the-job training continued to play a key role in the department's accident prevention efforts. This was supplemented by the development and distribution of health and safety awareness materials and through special presentations.

The section continued to provide consultative services, advice and assistance to managers, supervisors and employees in support of their occupational health and safety responsibilities.

Following is a breakdown on the Workers' Compensation Board claims administered on behalf of the department for the year ended March 31, 1984.

Fatalities	2
Lost time injuries	234
Medical aid injuries	191
Hearing loss	2
Personal appliance (eye glasses & teeth)	32
Recurrence	2
	463

Regional Reports

Region 1 (Southern)

A high level of construction activity was maintained in southern Alberta during 1983/84. Competitive bidding in the road construction industry ensured that prices remained stable with little change in the number of projects initiated.

In the maintenance sector favourable weather conditions ensured a successful completion of the program with few difficulties experienced, particularly during winter months. During the winter of 1983 a program was introduced whereby local farmers with large tractors and snowplowing equipment were invited to bid on contracts to assist in snowplowing improvement district roads. A modest response was received but due to a mild winter their effectiveness was not really put to the test.

Highlights of major construction projects in the region were:

- Two major projects on the Trans Canada Highway were virtually completed and opened to the public at the end of 1983. These comprised 9.3 kilometres of twinning east of Brooks and 10 kilometres of twinning from Medicine Hat to Dunmore, including major bridge construction over the CPR tracks at Medicine Hat. Both projects contributed significantly to the overall twinning program of the Trans Canada highway and now provide significant benefit to the large traffic volumes near these urban areas.
- The realignment of 6.35 kilometres of Highway 3 from west of Blairmore to Frank in the Crowsnest Pass was completed, effectively reducing traffic congestion in downtown Blairmore while providing good access to the business sector. Special environmental considerations were made during the retraining of the Crowsnest River. Following completion of the work, fishery biologists reported an increase in fish stock, possibly as a result of the measures taken as part of the river retraining.
- Significant improvement made in four-laning Highway 3 through the Town of Coaldale was managed by engineering consultants for the Town of Coaldale under agreement with the department.
- Ten kilometres of Highway 23 were realigned and upgraded to high standard from the junction of Highway 3 at Monarch to Nobleford as part of a continuing program to upgrade the highway to modern standards, recognizing the large increases in traffic volumes using the route from Lethbridge north. Included was the construction of a major interchange at Monarch.
- Pavement rehabilitation was applied to 57 kilometres of old surface together with recycling of 56 kilometres of existing pavement. The value of recycling old pavements is being realized as gravel resources become scarcer and the cost of asphaltic oils continues to rise.

In co-operation with municipal districts and counties in southern Alberta, a number of other major projects were undertaken on secondary roads in the area.

Recognizing the importance of the Red Coat Trail as a southern Alberta tourist route, improvements including the application of dust suppressant were made to Secondary Road 501 west of the Saskatchewan boundary.

Major developments were initiated by the City of Lethbridge in the construction of Highway 3 (Crowsnest Trail) through the city, a multi-year program scheduled for completion in 1986.

Total expenditures for the region in 1983/84 were approximately $65 million.

Region 2 (South Central)

The South Central Region had an active construction program on highways, secondary roads, airports, rest areas and vehicle inspection stations in 1983/84.

On primary highways, 20 major projects were undertaken, of which 14 were completed and six carried over to 1984/85. Prominent were the interchange at the junction of Highways 2 and 22X and the base course and paving projects on Highways 36 and 41.

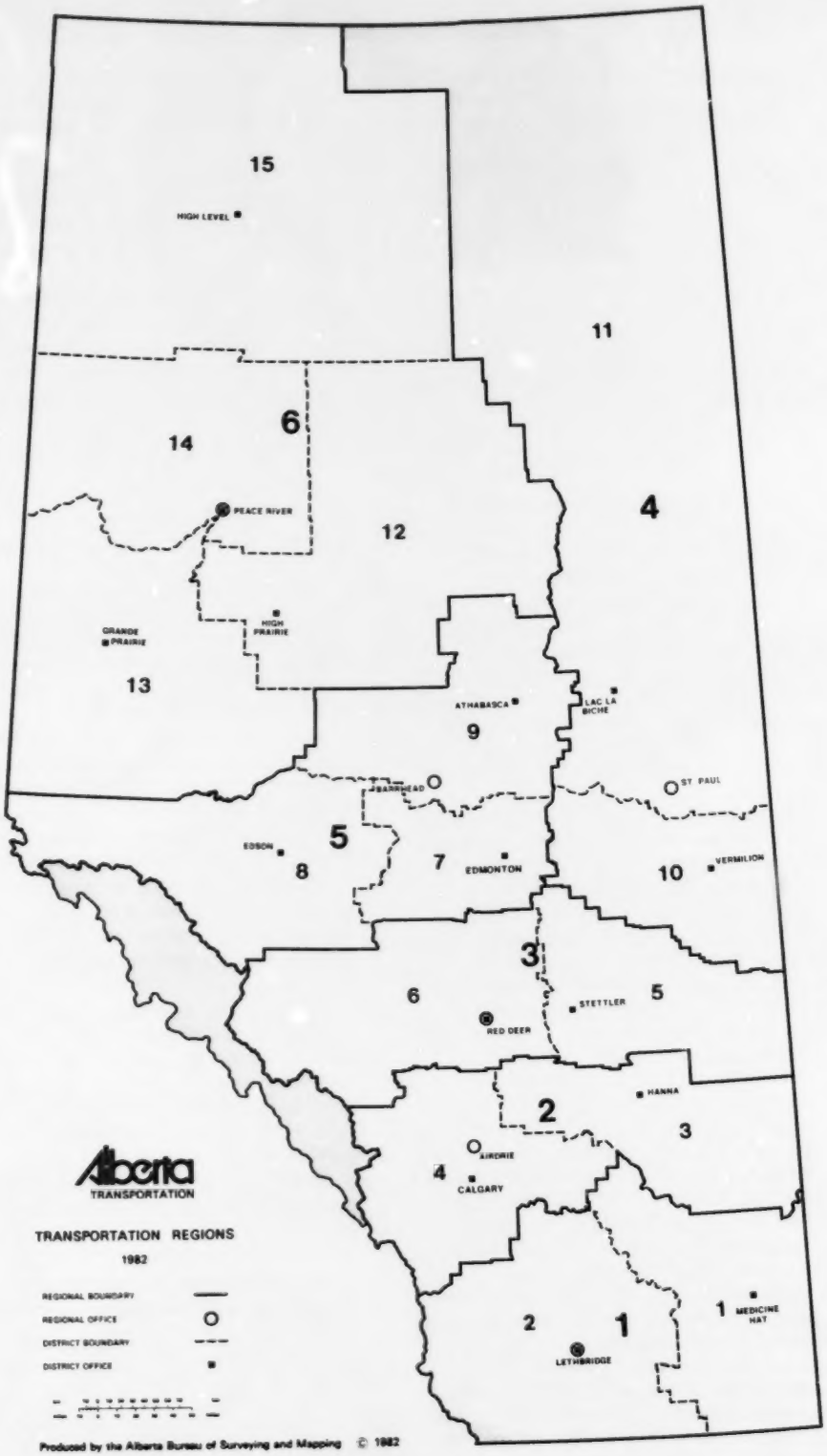
In addition, three construction projects on the Trans Canada Highway, under the highway twinning program, three preliminary engineering surveys by Alberta Transportation and a detailed engineering survey by consultants for a future interchange at Highways 1 and 9 were completed.

Under the program of construction of community airports, grading and paving of runways were carried out at Beiseker and Empress. Lighting was installed at Drumheller, Empress and Beiseker airports.

Major upgrading of secondary roads continued with projects involving grading, base course and paving. Of the 17 major projects, highlights include base coarse and paving on Secondary Road 567, base course on Secondary Roads 582, 575 and 851. A number of small miscellaneous projects were carried out.

In the campsite and rest area construction program, one major project was commenced on Highway 2 south of Crossfield and carried over to 1984/85 for completion.

The Vehicle Inspection Station Program included the overlaying of paved surfaces at the Jumping Pound site.


15
HIGH LEVEL
11
6
14
PEACE RIVER
12
4
GRANDE PRAIRIE
HIGH PRAIRIE
13
ATHABASCA
LAC LA BICHE
9
BARRHEAD
ST. PAUL
EDSON
5
8
7
EDMONTON
10
VERMILION
3
6
STETTLER
5
RED DEER
HANNA
2
3
AIRDRIE
4
CALGARY
2
1
1
MEDICINE HAT
LETHBRIDGE
Alberta
TRANSPORTATION
TRANSPORTATION REGIONS
1982
REGIONAL BOUNDARY
REGIONAL OFFICE
DISTRICT BOUNDARY
DISTRICT OFFICE
Produced by the Alberta Bureau of Surveying and Mapping © 1982

A number of bridges were constructed throughout the region, including construction of the interchange of Highway 22X over Highway 2, and grade separation of Highway 22X over the CPR tracks, both in the Midnapore area. The Red Deer River bridge near East Coulee was completed. Major structures on local roads included Crowfoot Creek near Cluny, Fallentimber Creek near Sundre, Tongue Creek near High River, Sullivan Creek near Longview, Blood Indian Creek near Jenner and the Red Deer River bridge near Empress.

Kananaskis Country road development continued with grading projects on various roads of which two major projects involved the Sibbald Creek Trail (Secondary Road 968) and the Elbow Falls Trail (Highway 66). Base course was constructed on portions of Highway 40 and Secondary Road 541.

Total expenditures in Region 2 amounted to $86.8 million.

Region 3 (Central)

A large construction program was undertaken in the Central Region during the 1983/84. Regional expenditures for construction and maintenance totalled more than $90.6 million. Dry weather was experienced in the early season, followed by heavy rains in late June and July. Good progress was made in late summer and fall with many projects completed and good starts made on projects called late in the year.

Highlights of major construction projects were:

- opening of the 32nd Street interchange on Highway 2 into south Red Deer
- paving of Highway 12 through Lacombe
- paving of Highway 13 from Wetaskiwin to Gwynne and Highway 2A from Wetaskiwin to Millet
- base course on Highway 22 from Highway 11 north 16 kilometres to Rocky Mountain House
- grading of 27 kilometres of Highway 22 from junction of Highway 53 to junction of Highway 13 east of Alder Flats
- grading of 19 kilometres of Highway 22X from Highway 54 east of Caroline, south to Secondary Road 587 at the James River
- paving of Highway 12 east and west of Lacombe and Clive access road
- base course on Secondary Road 780 from Mulhurst to Highway 13 and Secondary Road 616 from Mulhurst to Secondary Road 795
- paving on Secondary Road 597 from Blackfalds to Joffre
- grading on Secondary Road 792 from Highway 53 to north of Crestomere School
- grading on Secondary Road 815 from Highway 53 east of Ponoka, to the south county boundary
- grading on the Cottonwood Road west of Innisfail to Dickson Dam gravel stockpile
- base course on Highway 36 from south of Battle River to Highway 53 east of Forestburg, including access roads to Alliance and Galahad
- base course on Highway 41 from south of Czar to Gooseberry Park, completing pavement between Highway 12 and Highway 13
- base course on 16 kilometres of Secondary Road 886 from Consort to south of Monitor Creek
- grading 19 kilometres on Highway 56 from south of Meeting Creek to Edberg
- grading 15 kilometres of Secondary Road 600 from Highway 41 to west of Cadogan
- grading 23 kilometres of Secondary Road 855 from south of Halkirk to Endiang
- completion of grading of 17 kilometres of the Driedmeat Lake gravel haul road east of Highway 13
- base course on access roads from Highway 13 to Metiskow and Cadogan
- grading of access road from Secondary Road 855 to the Big Knife Provincial Park.

Pavement overlay on:

- Highway 2 from Bowden to Innisfail
- Highway 2 from south of Ponoka to west of Millet
- Highway 2 from north of Lacombe to south of Battle River.

There were approximately 45 kilometres of primary highways, secondary highways and roads carrying resource traffic that were paved. One hundred eighty-two kilometres were completed to base course stage and 60 kilometres overlaid under the Pavement Rehabilitation Program. Some 170 kilometres of primary highways, secondary roads, resource roads and access to Indian reserves and Metis colonies were graded or regraded. Also, 62 kilometres were graded and 570 were gravelled under the improvement district programs.

The Lacombe and Innisfail airport runways were overlaid and the department provided financial assistance towards the construction of new terminal buildings at Castor, Ponoka and Killam.

A number of meetings were held between regional staff and rural municipalities and a number of urban communities to review and resolve local transportation issues.

Region 4 (North East)

In 1983/84 construction and maintenance expenditures in the North East Region totalled approximately $100 million.

The following summarizes projects undertaken under the primary highway, secondary road, resource road improvement, twinning, Alsands and pavement rehabilitation programs:

- forty-one grading projects for approximately 359 kilometres
- nine base course projects for approximately 125 kilometres
- eight paving projects for approximately 127 kilometres
- six base course and paving projects for approximately 22 kilometres
- ten grading, base course and paving projects for approximately 108 kilometres.

Some highlights of construction were:

- completion of four-lane construction on Highway 16 from Elk Island Park to east of Secondary Road 834 (Chipman Corner)

- commencement of four-lane construction of Highway 16 from east of Secondary Road 834 to junction of Highway 15 at Mundare and from west of Innisfree to east of Mannville
- completion of base course project on Highway 36 from north of Viking to junction of Highway 16
- paving of Highway 41 from east of Weeks Lake to junction with Highway 16
- completion of grading and base course project on Highway 41 from junction of Secondary Road 631 to junction of Highway 45
- commencement of grading of Highway 36 from east of Kikino to north of Highway 55 junction
- completion of base course and paving project on Highway 63 from north of Hangingstone River to north of Athabasca
- completion of grading, base course and paving of Highway 63 from south of Park Road 119 to south of Gregoire Drive
- paving of Highway 55 from junction of Highway 92 to junction of Highway 28
- grading of Secondary Road 834 from junction of Secondary Road 617 to south of Tofield
- grading of Secondary Road 893 from junction of Highway 45 to North Saskatchewan River Bridge
- completion of base course project on Secondary Road 899 from Municipal District of Wainwright boundary to junction of Secondary Road 610
- grading of Secondary Road 646 from east of Lindbergh to junction of Secondary Road 893
- grading of Secondary Road 657 from Kehewin Reserve to east of Muriel Lake
- base course project on Secondary Road 660 from east of Franchere Bay to junction of Secondary Road 890
- grading of Secondary Road 831 from North Saskatchewan River to County of Thorhild boundary
- grading of Secondary Road 855 from south of Hanmore Lake to Beaver River Metis settlement
- construction of approach fills, piers and abutments for new North Saskatchewan River Bridge south of Elk Point.

As well, 75 kilometres were graded and 890 kilometres were gravelled with improvement district funding.

Region 5 (North West)

The 1983/84 program in the North West Region had a total budget expenditure of some $140 million.

A large number of projects were undertaken with the majority completed during the year.

Contract bidding for road construction and paving was again competitive with bids lower than estimated in many instances resulting in more work being tendered.

Significant projects undertaken included:

- The project on Highway 16X from Edmonton city limits to Secondary Road 779 involved construction of four-lane divided highway, providing four lanes of pavement to east of Highway 60 with two lanes graded and two paved from east of Highway 60 to Secondary Road 779.
- completion of pavement on Highway 37 and Secondary Road 635 from Highway 28 to junction Highway 15 including 1.6 kilometres of sulphur-extended asphalt on easterly section. This material was mixed at ratio of 70 per cent asphalt to 30 per cent sulphur.
- Asphalt surfacing of Secondary Road 625 was completed from junction Secondary Road 814 to Highway 21 completing a paved connection between Highway 60 and 21 through Nisku.
- completion of base course on Secondary Road 795 from Calmar south to County of Leduc/Wetaskiwin boundary, establishing paved link between Highways 39 and 13
- commencement of work on four-laning of Highway 21 from Highway 16 north to Fort Saskatchewan
- continuation of base course and commencement of paving on Highway 47 south of Edson
- opening of the Edson Rest Area facility on Highway 16 east of Edson
- completion of Highway 22 grading project south of Mayerthorpe
- completion of Highway 43 grading, base paving of climbing lanes and curve revisions west of Whitecourt
- completion of Highway 40 paving from Hinton to Grande Cache
- continuation of Highway 32 paving from Highway 16 (Peers) to Highway 43 (Whitecourt)
- pavement rehabilitation overlay Highway 16 in Chip Lake/Wildwood area
- two large grading contracts on Highway 33 between Swan Hills and Kinuso to complete upgrading to primary standards
- Two large base course contracts were awarded on Highway 32 between Whitecourt and Swan Hills, a significant start on surfacing of Highway 32 between the communities.

Several large gravel stockpiling projects were undertaken during the winter. Gravel was readied for projects programmed for 1984/85 where summer haul is not possible or practical. Mild weather created haul road problems, particularly where muskegs were not frozen, but difficulties were overcome and necessary material hauled and stockpiled.

Maintenance Highlights

- Privatization of some maintenance operations was initiated during the year. Campsite maintenance at 38 department campsites was tendered to local groups and individuals. In this first year of tendering the program was reasonably successful.
- Emergency winter snowplowing using large local farm tractors was initiated under the tendering system. The mild winter, however, prevented this venture from being used to its full extent and success of the program could not be fully evaluated.
- The Berrymoor Ferry across the North Saskatchewan River was taken out of service November 7, 1983, upon completion of the new bridge on the new alignment of Secondary Road 759.

Region 6 (Peace)

Another successful construction and maintenance year was experienced by Region 6 involving districts centred in High Prairie, Grande Prairie, Peace River and High Level. Expenditures for all phases of work exceeded $160 million.

There were some 106 kilometres of primary highway constructed involving 46 kilometres of primary base course, 32 of paving and 115 of pavement rehabilitation. Construction on secondary roads and forestry roads carrying resource traffic involved 60 kilometres of regrading and 70 of base course. Approximately 280 kilometres of regrading were completed on local roads throughout the region. The regravelling program on all types of roads covered some 3000 kilometres. Under the Roads to New Lands Program some 60 kilometres of roadway were graded and gravelled.

Construction highlights include:

- Highway 40 construction was 90 per cent complete on section from Wapiti River to south of Big Mountain Creek, a distance of 29 kilometres. Winter clearing was carried out from Big Mountain Creek to south of Kakwa River.
- Highway 33 between south of Kinuso and north of Swan Hills (32 kilometres) was reconstructed.
- Final paving of Highway 2 on hill west of Peace River was completed.
- Another 19 kilometres of Highway 67 was rebuilt north of Slave Lake in spite of adverse weather conditions.
- Final pavement on Highway 58 east of High Level and last section of Secondary Road 697 between Fort Vermilion and La Crete were completed. The travelling public is now served by a paved surface from La Crete through Fort Vermilion to High Level.

Regional and district management personnel continued to meet with elected councils to review and resolve local transportation issues.

REGIONAL ADMINISTRATION

Expenditure for Year Ended March 31, 1984

REGION		
1 Regional Office	$	593 291
District 1		387 518
District 2		410 147
2 Regional Office		881 131
District 3		320 890
District 4		555 296
3 Regional Office		662 799
District 5		291 770
District 6		345 183
4 Regional Office		578 242
District 10		447 189
District 11		473 648
5 Regional Office		728 101
District 7		562 362
District 8		538 334
District 9		431 782
6 Regional Office		527 156
District 12		349 635
District 13		444 203
District 14		438 759
District 15		272 794
HEAD OFFICE		
Program Management Administration		26 640
RTS-H-O Safety Program		171 500
Operations Administration		662 999
	$	11 101 369

CONSTRUCTION PROGRAMMING

Expenditure for Year Ended March 31, 1984

Director's Office	$	170 104
Program Management		784 098
Program Development		375 012
Municipal Services		204 620
	$	1 533 834

URBAN TRANSPORTATION AND PLANNING DIVISION

Urban Transportation Branch 45

M.M. Duncan
Executive Director

Planning

K.E. Howery
Executive Director

Operational Planning Branch 47

R.J. Sawchuk
Director

Systems Planning Branch 49

G. Halls
Director

The *Urban Transportation and Planning Division* is responsible for providing financial assistance to major urban areas and for transportation planning assistance to both the department and municipal authorities throughout the province. The duties are carried out through three major branches: Urban Transportation, Systems Planning and Operational Planning.

Urban Transportation distributes funding assistance to the 12 Alberta cities as well as the County of Strathcona (Sherwood Park) and provides an engineering resource role to these urban communities.

The Systems Planning Branch monitors provincial traffic volumes and provides detailed volume projections used to establish highway capacities and standards.

The Operational Planning Branch provides route location reports and functional design criteria required for detailed design work.

Urban Transportation

During the reporting period Urban Transportation was responsible for allocating more than $163 million to Alberta cities under the Urban Transportation Program. In 1983/84 the program had eight components, designed to provide assistance to cities for capital and operating costs incurred in the development and operation of effective roadway and public transit systems.

Twelve cities and the County of Strathcona (Sherwood Park) received urban transportation assistance:

Calgary	$ 46 395 313
Camrose	1 156 734
Drumheller	216 881
Edmonton	52 898 062
Fort McMurray	2 558 651
Grande Prairie	2 178 221
Lethbridge	30 793 037
Lloydminster	727 402
Medicine Hat	12 978 415
Red Deer	3 668 088
St. Albert	8 605 422
Wetaskiwin	166 532
County of Strathcona (Sherwood Park)	773 164
	$ 163 115 922

In addition, special projects of general interest to Alberta cities totalling $276 762 were funded under the Research and Development Program.

Details of grants made during 1983/84 for each of the eight programs are outlined in the following sections.

PUBLIC TRANSIT CAPITAL PROGRAM

Calgary	$ 23 000 000
Camrose	85 000
Drumheller	50 000
Edmonton	23 000 000
Fort McMurray	275 000
Grande Prairie	200 000
Lethbridge	560 000
Lloydminster	55 000
Medicine Hat	387 000
Red Deer	412 000
St. Albert	475 000
Wetaskiwin	65 000
County of Strathcona (Sherwood Park)	475 000
	$ 49 039 000

Funds assist cities in developing and maintaining public transit services. In the reporting period, projects approved for funding included design and construction of transit facilities, including LRT, and purchase of transit vehicles and other equipment.

ARTERIAL ROADWAY CAPITAL PROGRAM

Calgary	$ 13 368 000
Camrose	921 880
Drumheller	105 000
Edmonton	13 368 000
Fort McMurray	1 850 000
Grande Prairie	1 610 000
Lethbridge	3 461 500 *
Lloydminster	880 980
Medicine Hat	2 200 000
Red Deer	2 540 000
St. Albert	2 090 000
Wetaskiwin	0
	$ 42 095 330

* Includes $131 500 special assistance for a rest area facility.

Eligible projects include functional planning, design, construction and land acquisition for major arterial roadways that are extensions of, or support, the primary highway system and which are on a city's transportation system by-law.

MAJOR CONTINUOUS CORRIDORS PROGRAM

Edmonton (Yellowhead Trail)	$ 4 660 102
Lethbridge (Crowsnest Trail)	25 800 000
Medicine Hat (Trans Canada Highway)	9 717 000
St. Albert (Highway 2)	5 562 455
	$ 45 739 557

This program promotes the development of one high-standard major continuous roadway through a city. For a roadway project to be eligible, the route must be (in order of priority): the urban portion of a primary provincial highway, or a route which connects primary provincial highways, or a part of a city's connection to primary provincial highways.

RAILWAY/HIGHWAY GRADE SEPARATION STRUCTURE PROGRAM

Calgary	$ 905 333
Edmonton	3 500 000
	$ 4 405 333

Funds provided assist design and construction of railway/highway separation structures that promote efficient traffic operations and improved safety.

TRANSPORTATION SYSTEMS MANAGEMENT PROGRAM

Calgary	$ 1 349 000
Camrose	37 000
Drumheller	20 000
Edmonton	1 349 000
Fort McMurray	94 000
Grande Prairie	66 000
Lethbridge	172 000
Lloydminster	25 000
Medicine Hat	114 000
Red Deer	127 000
St. Albert	97 000
Wetaskiwin	29 000
	$ 3 479 000

This program promotes and financially assists with spot improvements that aid in the implementation of more effective and safer transportation systems.

RESEARCH AND DEVELOPMENT PROGRAM

Calgary	$ 400 000
Camrose	44 066
Drumheller	155
Edmonton	399 740
Fort McMurray	3 891
Grande Prairie	311
Lethbridge	75 537
Lloydminster	334
Medicine Hat	26 415
Red Deer	4 228
St. Albert	447
Wetaskiwin	0
County of Strathcona (Sherwood Park)	524
	$ 955 648
Multi-jurisdictional Projects	276 762
	$ 1 232 410

Funds provided assist in conducting research activities aimed at providing more efficient urban transportation. Major projects funded in the reporting period included:

Calgary

CALTS Model Update completion, South LRT Impact Study, Transit Operator Public Relations project and a Pavement Management System project.

Edmonton

Completion of a computer-aided Telephone Transit Information Systems Feasibility Study, Handicapped and Elderly Transportation Policy Study, Dynamic Weigh-In-Motion Scale project, and Transportation Forecasting and Analysis Systems and Procedures study.

Other Cities and the County of Strathcona

- completion of Transportation Study updates for Medicine Hat and Lethbridge
- completion of Hazardous Materials Inventory and Transportation Project for Red Deer
- completion of Transit System Economic Viability Study for the County of Strathcona
- Stoney Creek/Camrose Drive Soil Stability Research and Monitoring Project for Camrose.

Multi-jurisdictional Projects

- Standardized Truck Route System Study
- Financial Capacity Study Update
- Pavement Management System for Alberta Cities
- Transit Marketing for Small Properties in Alberta
- Traffic Signal Control Standardization Guidelines.

In addition, a major component funded for all the cities is the sponsorship of transit/roadway personnel in specialized technical or administrative programs.

GRANTS-IN-LIEU OF PUBLIC TRANSIT OPERATING PROGRAM

Calgary	$ 6 231 330
Camrose	25 618
Drumheller	13 016
Edmonton	5 513 140
Fort McMurray	335 760
Grande Prairie	242 630
Lethbridge	565 000
Lloydminster	18 058
Medicine Hat	403 800
Red Deer	485 620
Albert	329 820
Wetaskiwin	19 792
County of Strathcona (Sherwood Park)	297 640
	$ 14 481 224

This program provides grants toward public transit operating costs, including contributions to transit services for disabled and senior citizens. Grants were based on $10.00 per capita to urban areas with approved public transit services and $2.00 per capita to cities without approved public transit services.

PRIMARY HIGHWAY MAINTENANCE PROGRAM

Calgary	$ 1 141 650
Camrose	43 170
Drumheller	28 710
Edmonton	1 108 080
Grande Prairie	59 280
Lethbridge	159 000
Lloydminster	48 030
Medicine Hat	130 200
Red Deer	99 240
St. Albert	50 700
Wetaskiwin	52 740
	$ 2 920 830

These grants are provided to assist in the maintenance of primary provincial highway routes within the cities. During the reporting period the provincial contribution was $3000 per lane-mile of eligible roadway.

Operational Planning Branch

Operational Planning Branch is responsible for providing support services to the department in two areas:

- design and environmental services
- location services.

The branch provides engineering services principally to the department's Engineering and Regional Transportation Divisions. These form the basis for more detailed design and the determination of right-of-way requirements.

Interaction with other branches and divisions of the department, with other government departments, planning agencies and the general public is an essential part of branch activities in reaching agreements on important standards, alignments and specific design features of a project.

Computer specialists contribute to improved efficiency by carrying out various engineering, surveying, drafting and administrative tasks and are training other technical staff in computer applications.

The financial administration of Referral Services continued to be handled by the Operational Planning Branch. Expenditures for the unit's operation and a description of the functions are included in this report.

Specific projects, quantities of work completed and a financial report are outlined under the respective section headings.

Design and Environmental Services

This section provides preliminary engineering, landscape and environmental plans and studies for primary, secondary and other selected roads. Highlights of work completed in each functional area include:

Functional Planning and Preliminary Design

Preliminary designs and revisions were completed for 22 interchanges, 13 intersection improvements, 27 access control plans and six access control reports. Eighteen projects associated with utilities integration, boundary rationalization and development reviews on the proposed Edmonton and Calgary ring roads were completed. Sixty-four other miscellaneous projects such as engineering reviews, traffic studies and analysis, and minor research were completed. Work underway involves 58 projects. Some of the major projects include:

- preliminary design for interchange and local road system at the junction of Highways 16, 16A and 22 in the Village of Entwistle
- preliminary design plans for expanding Highway 1, east of Suffield to the junction of SR 524 and Highway 16, junction of Highway 32 to Edson to a multilaned divided standard with limited access (45 kilometres). Work is being advanced on another 75 kilometres of preliminary design on the expansion of Highways 1 and 16.
- preliminary access control plans for the primary highways through the towns of Hinton, Rocky Mountain House and Taber. Engineering input was also provided for access control studies being prepared by consultants for the towns of Grand Centre, High River, Spruce Grove and Wainwright.
- preliminary plans for intersection improvement designs for Highway 2A and SR 587 at Bowden, Highways 2A and 12 in Lacombe, Highway 28 and Namao Ridge Road and Highway 39 and the Thorsby access
- continued liaison work on the rationalization of the transportation and utility corridor and the integration of the adjacent land use and utility requirements with the Calgary and Edmonton ring roads.

Landscape Design

Design plans and field assistance were completed for 23 projects. Work underway at the end of the period involved 12 projects. Major projects completed in the fiscal year were:

- landscape design plan for a major rest area site on Highway 2 near Crossfield and a minor rest area site on Highway 63 near Wandering River
- Kananaskis Country Road Network Pull-off Design Summary Report
- preparation and field supervision of a major tree planting contract in Kananaskis Country
- landscape designs for Powderface Trail from the Elbow Road to Sibbald Road.

Environmental Design

Preparation of environmental mitigation plans and reviews of environmental plans and documents were completed for 16 projects. Some of the major projects completed were:

- environmental mitigation plans and report for Highway 940 between Grande Prairie to south of the Kakwa River. The monitoring of environmental plans during the construction phase of the above highway section and preparing mitigation plans for the section between Kakwa River and Grande Cache is being advanced.
- preparation of an Environmental Impact Summary for the road network in Kananaskis Country
- advancement of the preparation of the Fisheries Habitat Guideline related to highway engineering through an inter-branch committee.

Design and Drafting Services

Design and drafting was completed for 24 location study reports and six access control study reports. Drafting work was also completed on some 80 other design plans. Approximately 600 kilometres of highway mosaics have been updated for branch and departmental use. One Intergraphics terminal has been installed and six staff members have received initial training on it. Further staff training is being advanced so that the terminal can be used most efficiently to improve overall drafting quality and production.

Location Services

This section provides road corridor and alignment studies, location surveys and photogrammetric services for primary, secondary and selected other roads. Highlights of the work completed follow.

Location Studies

Studies were completed on 55 projects and another 188 projects were underway at the end of the reporting period. Some of the major projects completed were:

- Highway 40 south of Kakwa River to south of Wapiti River for 81 kilometres
- Forestry Trunk Road from junction Highway 40 north for 15 kilometres
- Forestry Trunk Road from Economy Creek south for 29 kilometres
- Secondary Road 881 from Conklin north to the Christina River for 33 kilometres
- Highway 22 - south of Highway 8 to Highway 1 for 7.8 kilometres
- Highway 28 north of Gibbons to east of SR 827 for 29 kilometres.

Location Surveys

Surveys were completed on 15 projects totalling 249 kilometres including:

- Secondary Road 940, Forest Reserve boundary to Nuisance Creek
- Sunchild Road, Nordegg River, north of Brazeau River
- Elk River Road, west of Elk River Crossing to east of Elk River
- Secondary Road 881, Conklin to south of Quigley

Survey staff from the districts assisted on several projects over the reporting period.

Photogrammetric Services

This section procures aerial photos by contract and from other agencies and conducts control surveys for use in contour mapping, mosaic plans, orthophoto plans, and landscape interpretation. Contour mapping was done on 117 000 acres, the majority was also digitized for use with computers in producing plans, profiles and various calculations assisting in route planning and design.

The changeover from the System 7 computer to the new Intergraph System was made, operator training was undertaken and by the end of the period the photogrammetric section was in full production on the Intergraph System.

Details of the work performed by Photogrammetric Services include:

- 44 417 aerial photo prints obtained
- 7329 kilometres of new aerial photography flown by contract
- 1274 kilometres of orthophoto mosaics produced
- 7583 kilometres of standard mosaics produced
- 535 kilometres of photo control survey on 20 projects completed
- 117 245 acres of contour mapping completed.

Referral Services

Referral Services provides timely technical assistance to the regional and district offices in their administration of the department's responsibilities relating to the roadside development function. Information and planning expertise is also provided to other branches and to external government agencies.

Referral Services administers the department's approval of utility placements along the primary highway system under terms of the Public Highways Development Act, Pipeline Act and the Water, Gas, Electric and Telephone Companies Act. This involves advising utility companies and owners of future highway improvements to minimize costly future relocations. It also involves developing and maintaining standards for utility installations to ensure the protection of the highway plant and user.

ALBERTA TRANSPORTATION OPERATION PLANNING BRANCH

Expenditures for the Year Ended March 31, 1984

OPERATIONAL PLANNING ADMINISTRATION		
Administration Services	$	245 413
General Office Services		110 382
	$	355 795
DESIGN AND ENVIRONMENTAL SERVICES		
Administration	$	76 899
Functional Design		376 569
Drafting Services		501 676
	$	955 144
LOCATION SERVICES		
Administration	$	571 398
Location Studies		312 955
Photogrammetry Mapping		190 558
Photogrammetry Airphoto Services		351 228
Reconnaissance, Location and Control Surveys		866 748
	$	2 292 887
REFERRAL SERVICES		
Administration	$	175 845
Utility Permits and General Services		148 729
	$	324 574
	$	3 928 400

Systems Planning Branch

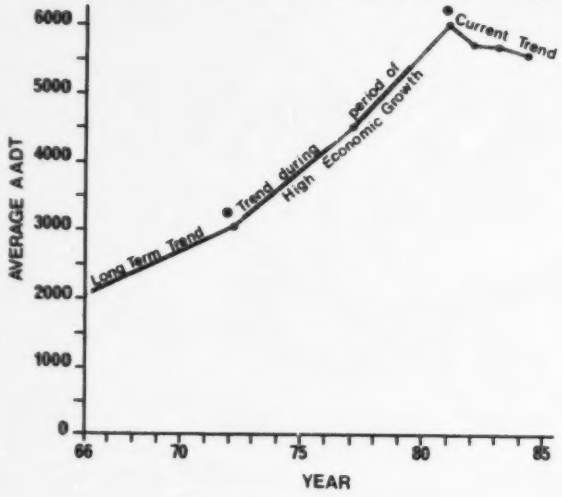
Systems Planning Branch carried out comprehensive planning and provided analytical services to the department's divisions. These responsibilities include forecasting future transportation needs based on expected social and economic development and assessing alternative means of meeting these needs.

The program of monitoring traffic volume and travel characteristics on the provincial primary highway and secondary road system showed a continuation of the no-growth trend which became evident in 1982.

TRAFFIC TREND ON PROVINCIAL HIGHWAYS

Identifying areas of activity within the general no-growth traffic trend requires the traffic monitoring system to provide precise information for design and programming decisions. This, along with the need to reduce manpower, has led to experimentation and use of mechanical and electronic methods of counting, classifying and weighing vehicles, and transmitting the information to the central data base.

Traffic Trends on Provincial Highways



Summaries of emerging and planned development activity and resultant transportation requirements were carried out in active areas of the province: the North Central Report (Sandy Lake/Chipewyan Lakes), the Lac La Biche/Fort McMurray Development Summary, the Zama City Area Report and the Coal Branch Development Activity Report.

The program of technical and financial assistance to communities in developing transportation plans continued. These studies are used in the transportation chapters of a number of regional and general municipal plans and offer information to municipal councillors on the transportation implications of land use expansion. In the 1983/1984 fiscal year studies were completed in six communities.

ALBERTA MOTOR TRANSPORT BOARD

Operating Authorities Branch 54

G.I. Bellingham
Director
Vice-Chairman of the Board

Motor Transport Branch 56

H.K. Walker
Director
Vice-Chairman of the Board

Administration, Research and Certificate Review Branch 57

A.C. Smythe
Director

The *Alberta Motor Transport Board* is a body corporate as constituted under the Alberta Motor Transport Act. As a quasi-judicial tribunal, the board deals with intra- and extra-provincial motor carrier and bus matters. When dealing with extra-provincial matters, the board takes a delegated authority to act as a federal board, from The Motor Vehicle Transport Act (Canada).

The board consisted of the following members:

H.H. HENDRICKSON, *B.A.Sc., P. Eng.*
member, chairman
(retired March 31, 1984)

G.I. BELLINGHAM, *CITT*
member, vice-chairman
Director, Operating Authorities Branch

H.K. WALKER, *M.Eng., P.Eng.*
member, vice-chairman
Director, Motor Transport Branch

A.C. SMYTHE
member
Director, Administration, Research and Certificate Review Branch

R.N. McGREGOR
member

R.M. WEST
member

J. REMPEL
member

J.R. SOULSBY
member

R.E. BOTHWELL
member

L. HOLLINGER
member

Through Alberta's initiative, the Council of Ministers responsible for transportation and highway safety instructed provincial officials to begin establishing guidelines and procedures that would lessen entry controls for motor carriers transporting goods across Canada. The Alberta Motor Transport Board, in liaison with other provincial boards and transportation officials and in consultation with the trucking industry, began a program to break down barriers to the free flow of goods by truck, extra-provincially.

As the least regulated jurisdiction in North America for intra-provincial motor carriers, Alberta finds itself able to move more quickly in the area of regulatory reform. However, Alberta must work in concert with other provinces and territories for compatibility and uniformity as to procedures and implementation timing.

A policy of issuing Operating Authority Certificates for three years, as opposed to one year, was introduced. As a result (see Schedule MTB 3), the number of renewed intra-provincial Operating Authority Certificates dropped from 5751 in 1982/83 to only 232 during 1983/84. This is a tangible demonstration of reducing the paperwork burden, for both the carrier and the board.

On January 6, 1984 the Alberta Government announced its plan to de-regulate the intra-provincial charter bus industry. This will allow all intra-charter bus carriers the freedom to pick up and drop off passengers at any point in Alberta. Previously, charter bus carriers were generally restricted to specific geographic zones of operation. Through the new system, Alberta citizens will have the opportunity for a wider choice of charter bus carriers.

The board has continued its practice of holding informal hearings on a weekly basis, as well as the more formal public hearings. As more progress is made towards regulatory reform, it can be expected there will be fewer hearings, resulting in less cost to the applicant to obtain extra-provincial operating authority.

Board members have continued to work within the Canadian Conference of Motor Transport Administration (CCMTA) in their efforts to achieve more national compatibility and uniformity and to attempt to minimize motor carrier regulations across Canada. In addition, on Alberta's initiative, a regional committee of provincial and territorial officials has been created to accelerate regulatory reform within Western Canada.

In addition, a closer liaison with United States federal transportation officials, as well as at state level, has been developed in order to assist the Alberta trucking industry cope with the rapidly changing regulatory scene in the United States.

Operating Authorities Branch

The Operating Authorities Branch is responsible for the prorationing of licence fees, insurance documentation, intra-provincial operating authorities and documentation relating to extra-provincial truck and bus operating authority applications placed before the Alberta Motor Transport Board for adjudication.

Through this branch, the province negotiates and maintains reciprocal licencing arrangements for commercial motor vehicles on an interprovincial and international basis. Alberta now participates in three commercial vehicle licencing reciprocity agreements in Canada and the United States. The three plans and their respective memberships are:

International Registration Plan (IRP)

Members, in addition to Alberta, include:

Alabama	Louisiana	Oregon
Arizona	Minnesota	Pennsylvania
Arkansas	Mississippi	South Dakota
Colorado	Missouri	Tennessee
Idaho	Montana	Texas
Illinois	Nebraska	Utah
Iowa	North Carolina	Virginia
Kansas	North Dakota	Wisconsin
Kentucky	Oklahoma	Wyoming

NOTE: The State of Michigan has been approved for entry into IRP, effective the 1985 licence year.

Uniform Vehicle Registration Proration and Reciprocity Agreement *(Western Compact)*

Members, in addition to Alberta, include:

* Alaska	Iowa	* New Mexico
Arizona	Kansas	North Dakota
* British Columbia	Minnesota	Oregon
* California	Missouri	South Dakota
Colorado	Montana	Utah
Idaho	Nebraska	* Washington
Illinois	* Nevada	Wyoming

* *Members of Uniform Agreement only.*

Canadian Agreement on Vehicle Registration (CAVR)

Members, in addition to Alberta, include:

British Columbia	Newfoundland	Prince Edward Island
Manitoba	Nova Scotia	Quebec
New Brunswick	Ontario	Saskatchewan

Details of permits and certificates issued and revenues received on behalf of the board are shown below.

COMMERCIAL LICENCING RECIPROCITY *Schedule MTB 2*
1983/84

	NO.	REVENUE
Vehicles prorated	25 825	$ 1 670 351 *
Cab cards issued	10 624	—
Backing plates	2 232	$ 6 696

* *Includes licence fees from nonresident carriers only. Licence fees from Alberta residents are paid directly to Motor Vehicles Division, Alberta Solicitor General. Prorationed licence fees from Alberta residents for the 1983-84 fiscal year totalled $3 126 509, which covered 11 730 prorated vehicles.*

The fees collected reflect a 25 per cent fee reduction schedule implemented by Alberta Solicitor General.

PERMITS ISSUED, REVENUES RECEIVED 1983/84

Type of Permit	NO. ISSUED/APPROVED	REVENUE
Liveryman's Licences	359	$ 3 590
Drive-Yourself Certificates	255	$ 2 550
Section 20 Permits (Special Purpose)	649	N/C
MTB 18 (Bus) Private Bus Permits	972	N/C
MTB 19 (Bus) Special or Single-Trip Permits	151	N/C
Bus Single-Trip Permits	375	N/C
MTB 85 (Bus) Equipment Exemption Permits	457	N/C

OPERATING AUTHORITY CERTIFICATES *Schedule MTB 3*
1983/84

INTRA-PROVINCIAL OPERATING AUTHORITY

TRUCK		BUS	
New Applications	2 401	Class A Charter Service	35
Amendments	312	Class B Charter Service	39
Transfers	18	Class C Charter Service	51
Cancellations	1 607	Intra-Provincial Public Bus Route Certificates	141
Reinstatements	32		
Renewals	232		

Also, five increases in public bus tariffs were approved and four changes in schedules were approved.

EXTRA-PROVINCIAL OPERATING AUTHORITY

	APPROVED	DEFERRED	DECLINED	TABLED	WITHDRAWN	CANCELLED
New Applications						
Motor Carrier	228	36	8	8	—	—
Bus	15	—	1	2	—	—
Amendments						
Motor Carrier	435	117	15	8	—	—
Bus	5	—	1	1	—	—
Transfers						
Motor Carrier	20	—	1	—	—	—
Bus	7	—	2	—	—	—
Cancellations						
Motor Carrier	122	—	—	1	—	—
Bus	1	—	—	—	—	—
Temporary Authorities						
Motor Carrier	806	—	19	3	—	—
Bus	6	—	—	—	—	—
Reinstatements						
Bus	3	—	—	—	—	—
Private Carriage						
Identification Cards	127	—	—	—	—	172
Renewed	586	—	—	—	—	—

Motor Transport Branch

Section 35(1) of the Motor Transport Act gives authority to the Motor Transport Board to make orders pertaining to a variety of transportation matters. Section 35(3) of the Act authorizes the board to delegate to the Director of the Motor Transport Branch the power to make any of the orders listed in 35(1). By virtue of this authority, subsections (n), (o), (p), and (q) of 35(1) have been delegated to the Motor Transport Branch.

To achieve its goal of maximum use of the highway system while ensuring highway plant protection and safety considerations, the Motor Transport Branch is divided into two sections, Transport Field Operations and Transport Engineering.

During the year, the branch collected in excess of $3 million in permit fees.

Transport Field Operations Section

Transport Field Operations (TFO) Branch has eight regional offices and 19 vehicle inspection stations (VIS) located throughout the province. As part of this branch's goal to "provide service to the transport industry" and its philosophy of "enforcement without prosecution," TFO officers perform inspections and issue permits. During this reporting period, 643 investigations were conducted on carriers.

To ensure consistency in the application of regulations, policies and procedures by all TFO personnel, three in-house training courses were held in Red Deer.

During the reporting period, new vehicle inspection stations were constructed at Dunmore, Coutts and Demmitt.

Transport Engineering Section

The Transport Engineering Section is responsible for developing regulations, policies and procedures for the use of transport equipment by the trucking industry that will maximize highway use, within reasonable safety limits and minimize highway damage. In this connection, Transport Engineering works closely with the Roads and Transportation Association of Canada (RTAC) in the development of equipment standards across Canada.

During the reporting period, the Engineering Section:

- initiated 31 general road ban orders to protect weakened roadbeds
- issued 14 786 overload permits and 11 996 special and over-dimensional permits, which can be issued only from the Red Deer office because of their special nature (self-issuing permits, pipeline loop permits, and special equipment permits)
- through audit control, monitored all overload permits issued to maintain origin and destination control on all equipment requiring such permit.
- continued to computerize, for immediate access the bridge evaluation program, designed to provide overload capacities on all bridges in Alberta.

The Engineering Section is revamping and streamlining regulations and policies in keeping with the move to regulatory reform and continues to provide advice to all segments of the transport industry on equipment standards and load distribution capabilities.

TRANSPORT FIELD OPERATIONS

LOCATION	VEHICLES WEIGHED	VEHICLES CHECKED	INFRACTIONS	FEE PERMITS	NON-FEE PERMITS	HOURS OPEN	TOTAL FEES
Acheson	73 096	9 105	985	6 815	2 125	6 286	$ 270 019
Ardrossan	39 172	4 878	320	891	553	3 301	22 993
Balzac	139 307	21 541	2 157	9 161	2 830	7 521	255 584
Calgary (O)	—	—	—	2 540	2 316	2 017	39 311
Cochrane	1 636	675	4	88	31	370	826
Coutts	20 678	14 759	779	3 390	1 888	6 942	139 187
Dunmore	43 450	6 066	416	7 419	1 863	6 688	169 159
Edmonton (O)	—	—	—	18 681	4 227	3 522	678 136
Burmis	27 349	5 341	725	1 785	584	325	46 062
Grande Prairie (O)	—	—	1	332	567	1 813	16 089
Grande Prairie	40 308	3 521	464	7 224	1 750	6 138	172 984
Grimshaw	8 330	1 248	675	4 223	2 214	2 965	134 787
Hinton	20 673	2 708	107	2 269	584	3 699	58 187
Jumping Pound	49 241	14 875	494	2 985	746	5 282	65 479
St. Paul (O)	—	—	—	2 028	589	1 988	42 219
Leduc	100 147	9 272	3 080	5 437	3 078	6 708	214 844
Lethbridge (O)	—	—	—	1 928	973	2 018	30 738
Morrin	10 682	2 652	75	1 609	339	1 785	41 275
Red Deer	2 378	410	3	6 589	812	2 665	139 133
Radway	32 173	3 544	775	2 274	1 337	4 572	76 284
St. Albert	24 959	2 585	144	841	461	2 458	20 698
Strathmore	41 103	5 767	225	1 360	358	2 920	40 396
Vermilion	75 644	4 853	228	5 599	1 691	6 582	133 205
Whitecourt	66 864	7 445	704	4 449	1 566	6 167	150 445
	817 190	121 245	12 361	99 917	33 482	94 732	$ 2 958 040

(O): *Office*

Administration, Research and Certificate Review Branch

The Administration, Research and Certificate Review Section is responsible, on behalf of the Motor Transport Board and the Motor Transport Branch, for delivery and maintenance of all administrative support services as well as providing revenue and expenditure control programs. This section is also responsible for the delivery of a research and certificate review program to assist development of and provide support to policy directives of the Motor Transport Board and the Motor Transport Branch.

Administration and Finance

During the reporting period, this section co-ordinated preparation and support of the annual operating budget for both the Motor Transport Board and the Motor Transport Branch. Support was provided to operating sections to ensure proper management of available funds and processing of all expenditures. Work continued on the development of controls and procedures to ensure efficient and accurate reporting of all revenues generated by all operating sections of the Motor Transport Board.

General administrative support is provided through continued development and delivery of programs in the areas of records management, procurement, asset and inventory control and all required services.

Certificate Review

Work continued on the development of the Alberta Commodities Index, a standardization of commodity descriptions and definitions applied to all extra-provincial operating authority certificates issued by the Motor Transport Board. Discussions were initiated with all provincial jurisdictions to advance the implementation of these standard commodity descriptions across Canada to achieve uniformity.

The task of conducting the systematic review of terminology, contained on all extra-provincial operating authorities issued by the Motor Transport Board, continued with 208 being completed. Fifty-eight entailed examination for dormancy which were conducted pursuant to Section 25 of the Motor Transport Act. The remaining 150 were conversions to commodities index terminology.

Research

The Research Section undertakes major and long term projects which evaluate existing policies, regulations and procedures. As well, the section analyzes industry impact resulting from new and/or proposed regulatory changes and recommends necessary action to the Motor Transport Board. A number of projects were undertaken which resulted in policy and regulation changes. The most significant was the identification of electronic data processing needs of the Motor Transport Board and the feasibility of developing a common data base and communication network with the Motor Vehicle Division of the Department of the Solicitor General.

TRANSPORTATION SAFETY BRANCH

R.R. Hogg
Director

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The *Transportation Safety Branch*, the provincial government's traffic safety co-ordinating agency, has been given the responsibility of reducing the number of motor vehicle collisions, injuries and deaths in Alberta.

During 1983/84 fatality and collision rates in Alberta declined — there were fewer fatalities in Alberta during 1983 than in any other year since 1971. Measured in terms of estimated vehicle-kilometres travelled, Alberta had the second lowest fatality rate in Canada.

The branch maintains liaison and undertakes joint projects with other professional traffic safety organizations such as the American Association of Motor Vehicle Administrators, Roads and Transportation Association of Canada, Canadian Conference of Motor Transport Administrators, Canada Safety Council, the Traffic Injury Research Foundation and the Commercial Vehicle Safety Alliance.

The branch contributes expertise to other provincial government departments, agencies, and boards such as the Taxi Driver Safety Commission, the Alberta Research Council and the Solicitor General.

Planning and Program Support

Planning and Program Support is responsible for integrating the three primary components of traffic safety — the driver, the roadway and the vehicle — into a comprehensive and planned approach to the transportation safety picture in Alberta.

Part of this involves collecting, monitoring and analyzing the causal factors of traffic collisions by the Crash Analysis Unit, which maintains the province's traffic data system. There are some 100 000 reported traffic collisions in Alberta annually, of which 8000 occur on primary highways. These crashes are thoroughly analyzed for road hazards and collision-prone locations. The information is used to recommend improvements to the primary highway system and to plan countermeasure programs leading to improved safety.

In addition to providing an in-house consulting service on all aspects of the identification, development, planning, monitoring and evaluation of traffic safety programs and countermeasures, the Research Unit keeps a watchful eye on high priority research areas. Extensive literature reviews were conducted on the magnitude and nature of impaired driving, drunk driving countermeasures, young drivers and child restraint. Comprehensive statistical information packages were completed on school bus crashes, fatal collisions, and dangerous goods crashes. A number of background documents were prepared for stakeholder groups and other government departments.

The research unit answered some 200 statistical/information requests on a wide range of traffic safety topics from the public, the media and other government departments. The requests took about 1300 manhours to complete and $26 000 in data processing costs.

For the year ended March 31, 1984 Field Service Section supplied employment for 15 seasonal or temporary staff. As a result 381 intersections were surveyed for vehicular movements and pedestrian interactions. In many cases particular manoeuvres were studied. Special incidents, queue lengths and specific actions were observed to develop a better profile of the intersections concerned. Thirty railroad crossings were surveyed in support of the Railway Crossing Improvement Program.

The year also saw a marked increase in the number of special location studies completed. Four hundred and thirteen locations were studied at the request of municipal traffic engineers and other professionals concerned with safety. Sixty sites were added to the Monitor Speed Study Locations Inventory, bringing its total to 625.

Some 52 locations (railroad crossings; intersections) were filmed or recorded on videotape to better illustrate safety concerns at specific locations.

To assist the highways safety engineer with a special rumble strip study project, 36 sites were surveyed to determine the effects of rumble strips.

Planning and Program Support also handled the administration, financial, and personnel responsibilities in the branch. The Administrative Services Unit co-ordinated and oversaw the branch's records conversion program.

Engineering

The Engineering Section is responsible for transportation safety aspects of vehicles and roads.

During 1983, staff inspected 12 044 vehicles. Included were 3638 school buses and 241 highway motor coach buses. Staff of the vehicle systems group are also responsible for evaluating and licensing repair facilities and mechanics who inspect school buses and motor coaches. A total of 1450 visits was made to monitor 803 inspection stations and the 1689 mechanics employed.

Vehicle examiners inspected 103 motor vehicles that had been involved in serious crashes and participated in 41 educational seminars for school bus fleet supervisors, drivers and others. In 1983, in an effort to promote highway safety and assist the logging industry, some 326 logging trucks and trailers were inspected in the northwest part of the province as part of a co-operative effort with the logging companies which is expected to be continued and expanded in the future.

Several crash investigation-related programs were continued. The principal program was the review and treatment of highway locations where collision build-ups occur. Information of some 800 sites was reviewed. Treatments were recommended on an individual or collective basis for interim or permanent correction. The section produced the annual Highway Improvement Priority List outlining sections of highways, bridges, intersections and interchanges requiring major improvement expenditures. Some 180 construction zone collisions and 200 fatal collisions were analyzed to identify and treat roadside hazards and to prevent re-occurrence of these types of collisions.

A formal rumble strip installation program was undertaken. Staff were charged with identifying suitable locations and evaluating driver reaction and effectiveness of these devices. Analysis determined the need for some design modification but results were encouraging and the program extended.

In-depth investigations were conducted into a number of fatal collisions, train/vehicle collisions and school bus crashes. Forty fatal crashes were investigated in detail. Seventy-two school bus crashes received detailed investigation and 253 other school bus incidents were reviewed. A comprehensive analysis of problems and countermeasures was produced. Relevant information was conveyed to school bus supervisors and drivers through 18 seminars.

In a number of cases, staff assisted the RCMP to analyze and reconstruct major or unusual crashes.

The section also provides a traffic engineering service to the department, including a number of purely traffic engineering programs including the design and installation of traffic control and pedestrian crosswalk signals at 15 highway locations, and an annual review of speed limits and speed limit observance on all highways. Detailed speed analyses were carried out at 71 locations resulting in speed limit changes at 35 locations.

Staff prepared 24 comprehensive reports relating to traffic problems identified by staff, municipal officials, municipal and provincial politicians and members of the public. These generally dealt with traffic control, signing and marking, or pedestrian concerns.

Traffic engineering staff co-ordinate railway crossing improvements on behalf of the department and many municipalities. Applications were made to the Canadian Transport Commission for improvements to 91 crossings.

Engineering staff provide a consulting service to other branches. Experience gained from crash analysis and investigation, traffic studies and vehicle performance evaluations is used to assess proposed highway designs, construction practices and maintenance methods. Other technical staff participated in development and design of new traffic control signs and signs conveying special traffic safety messages and assisted with the development and distribution of traffic safety displays.

Operator Improvement Section

Providing traffic safety education to the public is the primary aim of the Operator Improvement Section although several administrative functions are conducted as well.

During the year, the Operator Improvement Section made 1602 presentations to 1451 schools with 160 455 Alberta students receiving traffic safety information. In addition, 260 industrial and service group presentations were made to 7268 people. Lecture content varied from seat belt information to safe bicycling and school bus safety practices.

Displays on various traffic safety themes were conducted at 129 locations where safety education representatives were available to answer questions and distribute Alberta Transportation safety literature — much of which was developed by the section. Alberta Transportation's two "seat belt convincer" machines were busy throughout the province with approximately 14 171 Albertans riding the machines or observing demonstrations.

Interest in school bus driver training continued. Operator Improvement staff attended 25 school bus driver seminars and trained an additional 39 school bus supervisors in School Bus Driver Improvement Course manager orientations.

The Operator Improvement Section continued its counselling program with drivers involved in two or more collisions in the previous year. Interviews with 173 drivers were designed to assist them in preventing future crashes and to enable the branch to gain further insight into the causes of collisions. The counsellors share information during in-house lectures which outline the program and explain findings.

The driver training school industry in Alberta is licensed and monitored by the Operator Improvement Section of the Safety Branch. In 1983, 866 driving instructors and 94 driver training schools were licensed. Safety education representatives monitored 237 driver training school activities. A student questionnaire was developed and new instructor licensing evaluation procedures established for those wishing to instruct on tractor trailers and motor cycles.

The driver education incentive program provided trained driver certificates to 18 996 new drivers entitling them to an insurance reduction having successfully completed the approved Transportation Safety Branch Course.

The Transportation Safety Branch expanded its close relationship with the driver training and student transportation industries by improving its special seminars for managers and operators.

Forty-four school bus supervisors and 34 driver training school operators attended. To improve the quality of instruction in the driver training industry, two driver training instructor workshops were held with 72 attending.

The Operator Improvement Section continued to be involved with other government departments and outside agencies concerned with transportation safety programs such as Health Curriculum Development Committee for junior high school students, Alberta Operation Lifesaver, Alberta Action Committee for Child Transportation Safety (AACCTS), approval of Defensive Driving Course Curricula for the Alberta Solicitor General's Department and Alberta Safety Council Committees.

PUBLIC COMMUNICATIONS BRANCH

S. Holcomb
Director

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The *Public Communications Branch* is responsible for providing public relations counsel and communications services to the various divisions in the department.

The branch plans, develops and implements public information and advertising campaigns sustaining departmental policies, programs and services. It is also the co-ordinating centre for department publications, news releases, audiovisual and display needs.

During the 1983-84 fiscal period, Public Communications activities included developing a display with supporting audiovisual and print material that would travel province-wide, highlighting Alberta Transportation's hi-tech developments; planning an Urban Transportation funding awareness campaign; the launching of a winter/summer traffic safety awareness campaign; profiling of Motor Transport Board and Branch services through print advertising, audiovisual presentations, pamphlets and travelling display; promoting airport terminal building and bridge openings; as well as planning advertising campaigns pertaining to flagman safety and road ban notices.

Another major program concerned the branch's participation in a committee formed to communicate the importance of National Transportation Week. The campaign required detailed planning to set up special events and to generate interest in the transportation industry through publicity and information dissemination.

The Public Communications Branch took an active role in the co-ordination of conferences, conventions and world class exhibits with other government and nongovernment groups, provided assistance with internal communication matters and worked with individual staff in preparing supportive communications programs.

Alberta
TRANSPORTATION